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No. 2369.—VOL. LI.

LONDON, SATURDAY, JANUARY 15, 1881.

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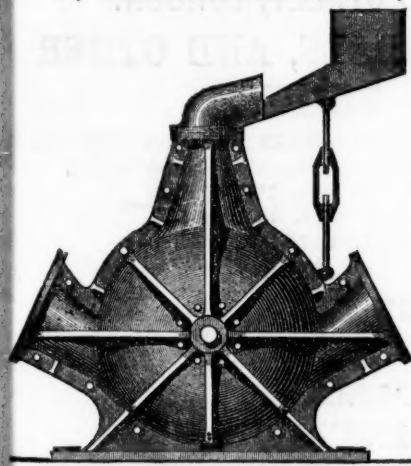
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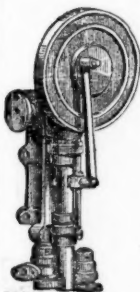
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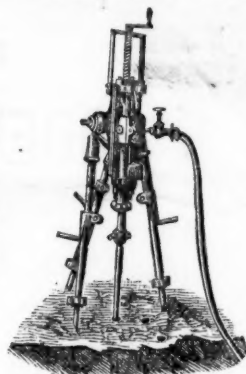
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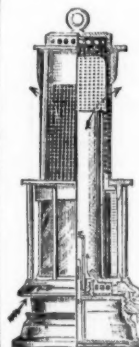
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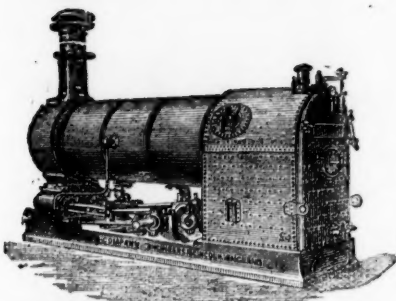
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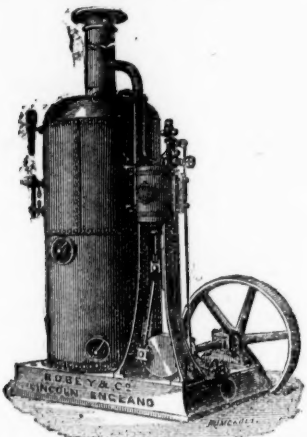
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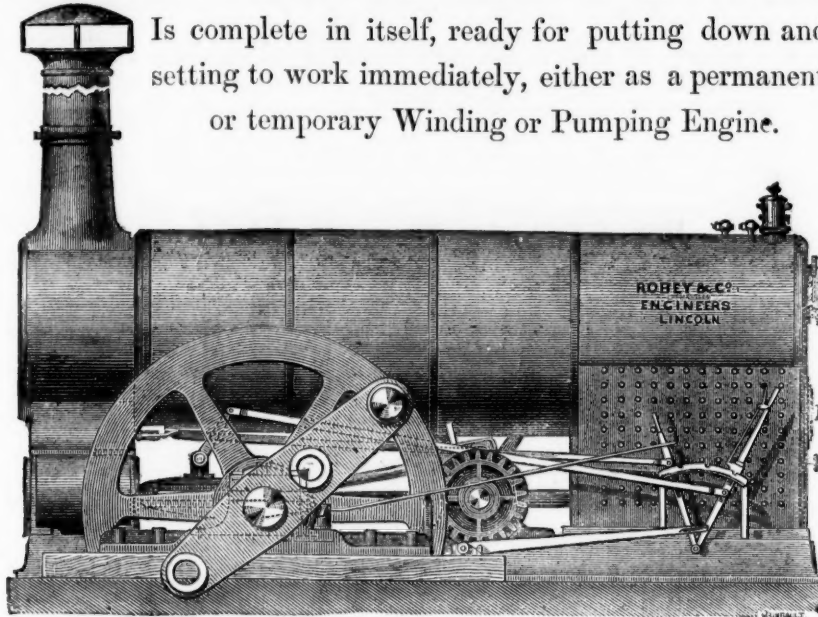
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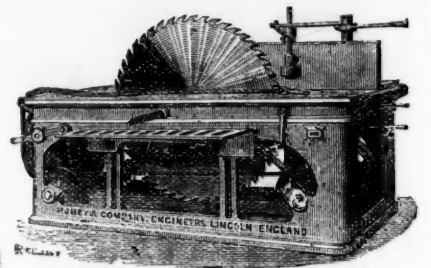
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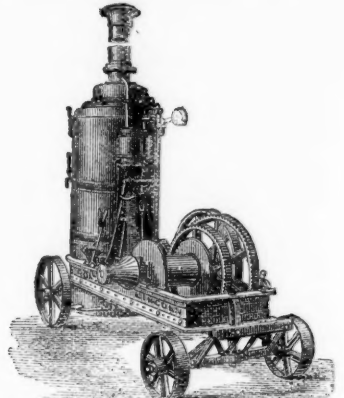
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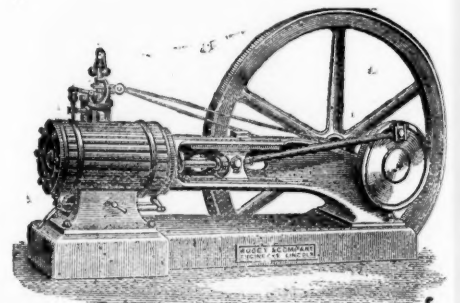
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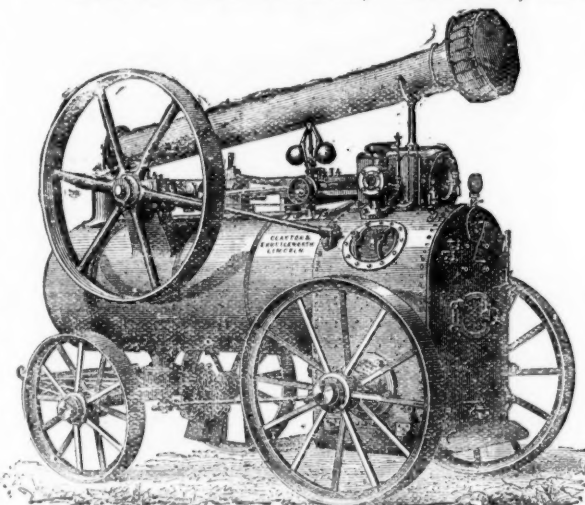
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THE LEAD TRADE.

SIR,—Our market for lead is very dull, and it is difficult to effect sales, but during the last week some large lots have changed hands, and the following are the reported sales:—1500 tons of WB lead, for delivery over six months, at 15l.; 800 tons of Greek, for prompt delivery, at 15l.—*Newcastle-upon-Tyne, Jan. 13.*

THE DYNAMITE MONOPOLY.

SIR,—If "Verax" will re-peruse my letter inserted in the Journal of the 7th instant he will find that I made no personal statement with reference to the fumes resulting from the combustion of dynamite. I simply inserted the copy of a report by Mr. Goffin on the Rhenish dynamite, some 10 tons of which were used under his supervision in driving the Halkyn Tunnel, North Wales. In firing dynamite or any of the nitroglycerine compounds complete detonation of the nitroglycerine is necessary, not only for the purpose of obtaining the maximum effect in the form of work, but also for preventing the formation of hypo-nitric fumes.

London, Jan. 8.

THE DYNAMITE MONOPOLY.

SIR,—I have read the several letters in the Supplement to the *Mining Journal* on the above subject, and to my mind some of them have not been written in a fair and manly spirit. I have no connection with the Dynamite Company, nor have I any interest in its sale. But I may observe that there are now two powerful explosives before the public, to the inventors of which mining shareholders and miners are under deep obligation—dynamite and tonite. One has not been in the market quite so long as the other, but both have done good service, and now, because the Dynamite Company have reaped some benefit from their labour and outlay, those who are actually still benefiting by its use intend to step in and deprive this company of an extension of their rights. I think I may venture to say that not one of those who are so anxious to prevent the Dynamite Company from renewing their patent would wish to be similarly treated. If the company are benefiting by its sale the consumers are benefiting by its use, and ought, therefore, to allow them a further renewal. If the Dynamite Company had suffered loss by the speculation, I presume not one of those now so anxious to oppose them would come forward and offer assistance.

Belfast, Jan. 19.

THE DYNAMITE MONOPOLY.

SIR,—Permit me to inform the subscribers to the fund for opposing the prolongation of Nobel's patent that the committees of London and Cornwall have appointed Mr. Johnson their lawyer, and retained Mr. Webster, Q.C., as their counsel. A caveat has been entered. Subscribers will oblige by forwarding their respective amounts at once. Other parties interested who have not yet intimated their wish to discharge a duty to the mining community by assisting to destroy this incubus will please communicate with the respective committees, or pay their subscriptions into the Alliance Bank, London, or the Cornish Bank, Redruth or Truro.

H. WADDINGTON.

NOBEL'S DYNAMITE.

SIR,—I have been no little surprised to read Messrs. Watson Bros. Circular—first, that they could see no difference between a lord refusing a lease to a mining company after having developed a good mine and the rejection of the renewal of Nobel's patent. All your readers saw the difference, so I need not dwell thereon.

In last week's *Journal* the same writer wishes success to the miners in their opposition if they can prove they can buy it cheaper, because Mr. Pendarves Vivian advises this. If it can be had cheaper? If!—who that has had an hour's experience of mining does not know that dynamite can be had at 1s. per pound in Germany?

The report of the South Condurow meeting has caused not only surprise but disgust that the Chairman should veto the vote of ten guineas by a majority of the meeting present. That 50 per cent. should continue to be wasted of the shareholders' money! It is time that a tyranny of this kind should cease, and the shareholders at large take the matter into their own hands, and decline to see their money thrown away for personal or other motives. Proof is forthcoming that the price has been excessive, and it is said that there are complaints that an inferior article has been mixed with the first quality and sold as first quality. This will doubtless all come out before the Privy Council.—*Jan. 12.*

MINER.

ANGLO-AMERICAN MINING.

SIR,—I find in the *Journal* of Dec. 11 a letter from Mr. W. B. Cobb, in which he says that he is at a loss to know from what source I have got statistics to found my statement that as a general thing English mining has not proved remunerative to capitalists. Permit me to say my statement was that "English capital evidently has not found home mining remunerative as a general thing." Evidence for this statement may well be derived from the fact that Mr. Cobb considered it necessary to lecture English investors about their being so "idiotic" as to invest in Nevada so-called silver mines, while neglecting the vast mineral treasures of the British Isles. I prefer to think English investors more intelligent than Mr. Cobb gives them credit for being; and as I have a firm faith in their intelligence, enterprise, power of discernment, and general freedom from the contracted insular views held by Mr. Cobb, I write these letters on Anglo-American mining, in which, by the aid of your kindness in publishing them in the *Mining Journal*, I endeavour to place before English investors the subject in what I conceive to be its true light. I now make the absolute statement that English mining has not, as a general thing, proved remunerative. Before giving my authority for this statement I desire to say that I do not wish either to be or to seem discourteous to English mine managers or to English directors of mining companies. Last summer you called attention in the *Journal*, I think, to a carefully written, valuable, and exhaustive book, by D. C. Davies, an English mining engineer of high standing. This book was published this year by Crosby Lockwood and Co., London, and is entitled "Metalliferous Minerals and Mining." On page 391 Mr. Davies writes as follows:—"Admitting, as I think we must, now that we are approaching the end of our enquiries, the great scientific and mechanical interest attaching to metalliferous mines and mining, it is humiliating to have to confess that the majority of mining enterprises are commercial failures. It is still more humiliating to be obliged to admit that this confession applies with particular force to mining in the British Isles; and the more so since for their size these islands are the most highly mineralised portion of the earth's surface. A larger proportion of mines pay, as far as can be ascertained, for working in America and Germany; the worst of it is that as a rule the most unsuccessful mines in North-Western America are those worked by English companies and under English management. It is said that of American mines introduced into this country within the last seven years all but one or two have been failures, and have entailed a loss of money amounting to 10,000,000l."

Then there are between 500 and 600 lead mines in this country, of which scarcely 50 are paying a profit. There are 104 copper mines, making returns of ore, of which I do not think more than a dozen are worked profitably. Indeed, we may safely assume that the proportion of unprofitable mines to profitable mines is ten to one. This is a serious state of things, and one that almost amounts to a national disgrace; and it behoves us to seriously consider whether it arises from unavoidable difficulties, inherent in mining, or whether any part of the cause of failure may be moved.

In view of what Mr. Davies says, I think I have not overstated the case as regards English mining. Permit me further to say that my statement was that "English investors have lost a good deal of money in American and other mines." I neither said nor admitted that English investors have lost an immense amount of money in American mining companies, as Mr. Cobb would make it appear that I did. I did, however, say something which Mr. Cobb is careful to omit mention of, for the reason, doubtless, that my words would at

once show that my rather severe, but no doubt true, indictment applied equally to English companies as to American. He admits the words "or hundreds of thousands of pounds." English and not American companies stock mines for hundreds of thousands of pounds. Hence the omission, I presume.

The great loss of money to English investors in American mines has come to them through English companies. London directors, the London financial mode of organizing mining companies, together with London management, are mainly responsible for that loss. If the money so liberally subscribed by English capitalists had been fairly and judiciously employed the American mines would not have been found wanting, and large profits would have come back to England. American investors it is who have lost their money through American mining companies. America, however, is a country of rapid progress. There the old order of things as regards mining is fast dying out; a new and better system is taking its place as the means of developing the mineral wealth of America. Mr. Joseph Taylor, M.E., in his very able report to the directors of the Silver Peak Mining Company, thus speaks of Colorado:—"I visited most of the mines in the district, also those of Leadville, and am thoroughly convinced that Colorado is destined to become one of the richest mining districts in the world when thoroughly opened out and developed. The Rocky Mountains seem to be one bed of mineral, and all that seems to be wanted is skill, capital, perseverance, and railway communication, when the mines in that district must rank second to none in the country." Capable management, legitimate, honest mining, are coming into vogue in America, and must come into vogue in England before investors in English mining companies can realise the profits which mining ought to pay. Sneering at honesty is ill advised, idle, and foolish from a champion of English home mining. Promoters and managers of English mining companies must learn to deal openly, candidly, and honestly with the public and with investors before English mining can become the credit to England which it ought to be, but is not.

Chicago, Dec. 27.

J. J. WEST.

CENTRAL RAILROAD COMPANY OF NEW JERSEY—SEVEN PER CENT. INCOME BONDS.

SIR,—The ordinary shares of this company have advanced to 88½ at New York, which is equal to 91½ in London. Now the share capital is \$20,000,000, and the Seven per cent. Income Bonds, which are perpetual, represent \$2,450,000, or less than one-eighth part. As the Americans are buying the shares at the above price the Income Bonds are certainly worth more than their present price of 106 to 109; in fact, they are worth 120, considering that they are amply covered by the very large share capital.—*London, Jan. 13.*

B. E.

ROSSA GRANDE MINING COMPANY.

SIR,—I have just seen a letter written by a miner at present working on the St. John del Rey estate to Mr. Williams, a miner working in a mine near St. Austell, Cornwall, in which the writer, describing a visit he paid to a neighbouring mine called Rossa Grande, expressed great surprise that the last-named property was not in full working, as he saw enough with the naked eye to assure him the mine was rich in gold, and that most likely in depth immense wealth might be found if properly and vigorously worked. Now, if such be the fact, I think, Sir, you will agree with me that it may be high time that the officials of the Rossa Grande Company, whoever they may be, should look seriously into the matter, as it is just possible those left in charge of the mine may for their own interests keep every one else in the dark concerning the real worth of the property, which, unhappily at the present moment, appears to be managed by gentlemen who are probably at disunion in the matter, and the unlucky shareholders, who have been disappointed these many years, are too weary of the affair now to wake from a long slumber. Perhaps, through your kind instrumentality the *Mining Journal* might accomplish this desideratum.

Cambridge, Jan. 7.

INVESTIGATOR.

MINING IN BRAZIL.

SIR,—The Brazilians have taken a new departure; they are attempting to work some of the mines which surround them on every side, and even in some cases employing capital in the work—these, however, are the exceptions. As a rule the man who attempts mining, is one who cannot make a poor living by vending a little vestillo, tobacco, and soap, the usual stock. Lately some rich ground near the village of St. John del Rey has been purchased by some Brazilian capitalists, and a very extensive jacotinga property which lies between the North Pedro and the Pitangui Mines has been prospecting by an Ouro Pretian, with fine results. I was attracted to the spot by seeing a sample of some 300 oitavas gold, 22½ carats fine, one clean up of a small mill, which was sent in to sell. With a party of gentlemen representing three nations, I visited the place Antonia Pereira, and spent a couple of days in the study of jacotinga. The real property covers about 2½ by 3½ English miles, and takes in the entire village. Large beds of the jacotinga have been uncovered by turning streams of water over them, and this has also developed a number of quartz veins which show coarse gold. With all these riches in sight, the owner understood but one way to secure them; he must have a mill; a mill of nine heads of stamps was built, and to-day, the jacotinga, which is soft as meal, is brought down the hillside on mules, and run through the mill, then over sluices and blankets at a sharp incline, with a flood of water. Hydraulic mining as carried on in California is unknown in Brazil. Antonia Pereira has every facility for it—water at great elevation, and a supply sufficient to wash a thousand tons daily, at a nominal cost. The richer parts of the lode gave at the mill 10 oitavas per ton by actual test, worth 4l. 10s., the gold is 22½ carat fine. The soil and gravel for two miles below the mill, and nearly the same distance in breadth, independent of the lode matter, all show gold. A proposition was made on the spot for the right to purchase within six months from that time, with a first payment of 10 contos (1000l.) in thirty days. An expert with 40 men were set at work the same week, to examine and survey the place.

A sample of very coarse gold and some specimens of bright black hard jacotinga have just been sent in from the Corrego San Miguel, where on the large estate near St. John de Morro Grande, vigorous work has been prosecuted for two months past. The sample reminded me of the early days of California gold washing, when shot gold was so plentiful. This work is being done for foreign account, the prospectors having the right to purchase, which they will do if they are satisfied that it will answer for a large company. A deep open cut has been driven across the formation, and it is now entering the pay or rich central part. Water is abundant, and there will be a combination of hydraulic and mill work. The owners confidently expect to find riches equal to those of their near neighbour, Gongo Soco, gave in years past; their faith is certainly grounded on good evidence. The proper use of water will economise the cost of mining, as in these formations it is simply excavating, and water can do it all.

Nothing new is adopted by the Brazilians, all improvements must come from foreign sources. I remarked to Senhor C., at Antonia Pereira, "You must make a heavy loss of fine gold; your sluices are very steep, and you use a flood of water on the blankets;" "But," says he, "I can go after it again," and to make this clear to me he took the batea down the tail-race some 200 yards, and washing out of the sand a good sample of gold said, "You see I have it," but at what cost and loss of both time and gold he did not stop to enquire, nor did he think of the next very heavy rain-fall, which tears up and turns over the surface as it forms in torrents. In similar ways gold was widely distributed by the ancients in all their washings. Even now people are seen along the streams washing with no other appliance for saving the gold than sod and grass roots, over which a small stream of water is turned.

English enterprise has met with much disaster in Brazil, but mining is a far different business now from what it was when the numerous English companies were formed, and money was lavishly spent in building houses and giving entertainments, with also bad management at the mines.

The St. John del Rey Company have done a good service for their followers by educating many persons in each department of mining

and milling; and now that circumstances admit, these educated, acclimated men are here to manage other mines. The above named company has had a very prosperous and long career—a monopoly of the skill and talent that could be found or made here. Other companies are now getting a good hold, and new ones will be formed. The Emperor has not arrived, but the heavy rains are here; the heavens have been fairly opened during the past ten days.

Ouro Preto, Dec. 4.

MINAS.

THE CAPE COPPER COMPANY.

SIR,—I think "H. G." in last week's *Journal* somewhat understates the cost of the copper they raise. In cases where the ores run up to 38 and 40 per cent. the cost may be 35l. per ton of copper laid down in England, but the great bulk of this copper cannot cost the company much less than 38l. or 39l. at present. This is, however, sufficiently good to preclude all serious competition on the part of any known purely copper companies, and they are left a very long way behind in the race after profit. The company has very great advantages—first of all cheap labour, huge deposits of the richest known ores to work at; then again freight at one-third the price of that from Chili, and cheap and easy transit to the coast. It may be said of this company that excepting at one of their mines—Ookiep—where they are hard at work, they have hardly put a pick into the vast mineral wealth in their hands, nor would it have been wise to do so until they had provided the means of transport. This they have now done, and already we see a very large increase in the production.

As your Correspondent at the Cape says the Government are taking the matter up and laying out money in improvements on Port Nolloth in the company's interest, and from what I have heard, copper will in years to come enter very largely as an article of export from the Cape, more so than most people suspect. Another great hindrance to the rapid development of the property has been scarcity of labour, but here also the Government is coming to their aid in promoting emigration from other parts of the colony. So far the company has only been able to get together some 1500 hands at the mines, whereas they could easily find employment for 4000 or 5000 as the works advance. No doubt this state of things will soon be remedied. The colony ought to attract labouring men, as the climate is simply splendid, and everything is done by the company to promote the comfort of their workpeople.

J. H. T.

SENTEIN MINING COMPANY.

SIR,—I think "Large Shareholder" is mistaken as to several important facts he states. I believe that for some reason, or for no reason, the old dressing machinery has not been used at all since the beginning of July. All the dressing machinery at work since that date has been such part of the new dressing machinery as was ready. This has only been completed gradually, part being ready in July, part in August, and part in the middle of November, each part being completed very long after the time promised for its completion. And we have had to pay an enormous price for it, and do not yet know whether it does turn out each month the large amount of lead and blende it was most confidently asserted it would turn out. Why the old machinery has not been kept at work all the year I cannot understand. There is, and there has been all the year, a very large stock of ore ready for the dressing floors, and enough for both to be at work. We ought not to have on hand these great stocks of broken ore. It seems to have been bought one year to be thrown aside the next. This, if so, is a clear proof of the careless management of our board. Of course, it ought to supplement the new dressing machinery. I do not believe the board have a large balance in hand. If they have, why did they make the last call at all? Still more, why did they make it only some six weeks after another call of equal amount? I trust shareholders will not be led away by any wild scheme. Let us first touch good and steady dividends, and then we may think about further developments, which always mean further capital out of our pockets. Let "Large Shareholder" remember this, that the increase in our capital to 50,000l. requires us to make profit half as large again as last year to obtain an equal percentage.

We have had no official statement of our expenses from December, 1879, to July, 1880. If we take them from the accounts for last year as a standard, and bear in mind that during three or four months of this time very little work was done at the mine, I believe they will be found not to exceed 500l. each month, or 3500l. for the seven months. Our ignorance on this head is all due to the stupidity of shareholders in not having insisted last year on a half-yearly report and accounts, and a half-yearly meeting. I believe that with decently good management the last year we should have made splendid profits, but I fear that from the want of this, from the long delays in the erection of our wire tramway and our dressing floors, and from the absurdly impractical number and action of our board, we shall be sadly vexed when we get at last our report and accounts, and find a paltry dividend of perhaps as much as 15 per cent. recommended, and may be our capital nearly all gone.

SHAREHOLDER.

SENTEIN MINING COMPANY.

SIR,—The question about the performance of the wire tramway is a very simple one. Mr. Carrington, I think, does not dispute what it has at present actually carried, and that when only working for 26 days each month, nor does he positively state that its real average carrying power is at present 60 to 70 tons each working day, but he wishes the readers of the *Mining Journal* to infer that it does carry all the ore which can be brought to it, and that when the supply of ore is larger, and more ore can be treated at the floors (as is now the case), more will be carried down; this is simply misleading and irrelevant.

The only question is the carrying capacity of the tramway. There is ample space at the floors for storage of broken ore in very large quantities; indeed it was proposed to carry large quantities down during the autumn, so as to be safe against the possibility of the tramway being useless in the winter. The question is, whether the tramway does or really can carry what the board in their report of January, 1880, said that it could—100 tons or more daily? Can Mr. Carrington name a single month in which an average of 70 tons a day was kept up for the working month of 26 days, in which 1620 tons of ore were brought to the floors? Even were it so it would be ridiculously below the above-quoted statement of the board. Unless the tramway can bring down upwards of 90 tons in each working day I say its capabilities have been grossly overstated. A trial of a single day or a few hours is a mere delusion.

No doubt in winter it is better than nothing as a means of transporting ore; but consider the enormous price paid for it and for its erection, and the delays of its erection. Contrast what was promised as to its carrying capacity and what it has actually carried. I do not believe it can be worked to carry over 80 tons a day on the average at the very outside. I believe it will not carry anything near that amount for each working day in the year. I think the directors have laid out their money recklessly. We were to have had a wire tramway which should carry some 2000 tons of ore each month; we have one which has carried about 1000 tons each month. Very large stocks of ore are broken in the mine, and were there for the tramway to carry, if the tramway could have carried them.

I hope the shareholders in general are not so easily satisfied as "Large Shareholder." He is quite wrong as to the use of the old dressing machinery for supplementing the new. Since June last the old machinery has been stopped, and yet the board, in their report of January, 1880, stated that it was then capable of producing 30 tons of silver-lead and 45 tons of blende per week. Why, then, stop it, even if the new machinery should possibly turn out ore of a slightly higher percentage? There is plenty of ore at hand to supply both sets of machinery. The old machinery was only completed in 1879, and yet in 1880, so careless is its selection found to have been made, that, costly as it was, it was put aside as useless. With the two sets at work, and with the tramway carrying no more than 80 tons in each working day, I believe we could turn out for each month, when not stopped by frost, nearly 1000 tons of galena, carbonate, and blende. I should like, also, to ask Mr. Carrington why

the tramway does not carry the ore to the dressing-floors? It ends at least a mile from them, and thence the ore is carried in carts. Why might not this cartage have been avoided?

DISSATISFIED HOLDER.

COST-BOOK AND LIMITED LIABILITY.

SIR,—I perceive by a report of the meeting of the New Cathedral Mine in last week's issue that the directors propose to conduct the affairs of the company on the Cost-book System. Now, as this is tantamount to unlimited liability, I hope that shareholders will enter their emphatic protest against such a change. Indeed, I very much doubt if the directors are legally justified in making the alteration.

It seems strange in these days, when even old established companies are being transformed from unlimited to limited, that the New Cathedral should make itself thus conspicuous, and set aside and ignore the Limited Liability Act. Like Mr. Parnell, it evidently wants to make itself famous, but I doubt whether it will succeed.

Jan. 11.

G. R.

MINING IN SHROPSHIRE.

SIR,—Your Correspondent for Salop and Cardigan a few weeks ago made favourable reference to what he justly terms the limited but rich lead mining district of South Shropshire, and expressed a wish that some of the miners of the district would furnish some information respecting it. I may, therefore, state that the Stiperstone range of mines includes the Snailbeach, Mytton Dingle, Perkins Beach, Tankerville, Potter's Pit, Pennerley Bog, and South Bog. The Central Snailbeach and Round Hill Mines adjoin the above on the north-west, but I consider them out of the mountain range. Should I have omitted any mine or mine sett, I hope those interested will pardon it, and give a description of them themselves; and before I say anything about each or any of the mines should like your Correspondent for Salop if he will favour us with some details of the geology of the Stiperstone range, which, I believe, he is well qualified to do.

A SHROPSHIRE MINER.

TIN MINING IN ST. BLAZEY.

SIR,—When "Fish, Tin and Copper" called on me, through your valuable Journal of Dec. 18, to point out more of the mine speculations in this district, I fear I did not clearly mention Wheal Kendall. I should have said that this was formerly called Prideaux Wood Mine. It is a valuable property, tin and copper ore amalgamated, and is about 60 fms. deep perpendicularly.

My friend Mr. "Killas," writing in your Journal of Jan. 1, might have thought I was not intending to make my remarks as to the killas formation. This locality is divided by the junction of granite and killas; the granite on the west has an easterly dip of about 2½ ft. in 6. This junction dividing the strata is highly mineralised from Lostwithiel to far west of the Old Polgooth Mine. "Killas" remarks on my writing strongly as to the granite, but my employers have as valuable properties in the killas as in the granite. For instance, the Plym Wood Mine, near Lostwithiel, was worked about 20 years since for copper, nickel, and cobalt in the lands of Messrs. Nicholas Kendall and Richard Foster. The tin and copper lodes in the sett are very numerous, and will yield near surface almost saving work.

The Wheal Polharmon sett, in the land of Mr. Nicholas Kendall, is only to the 60 fms. level, where courses of copper are now in the ends and tribute pitches, but this property was unfortunately filled with water by the stopping of Old Fowey Consols Mine.

I will now pass on to the Sawle's Old Mine (to which I have before called the attention of your readers), in the land of Sir Charles B. Graves Sawle, Bart., is another good speculation in the killas. It is now 80 fms. deep, and tin and copper ore has been returned in large quantities. Also in the land of the latter gentleman is Wheal Union sett, 40 fms. deep, a most promising young mine, and in my opinion, only erect a steam engine on it, and with a small development it will be a dividend mine. The lodes are large and well defined, composed of iron pyrites, splendid yellow copper, and black oxide of copper, as well as tin. A large quantity of the former has been sold from this and each of the mines I have mentioned. All practical miners are aware that mudic rides a good horse. The lodes in the latter mine (Wheal Union), are running into the Wheal Elizabeth sett, in the western hill, the land of Mrs. Blamey, where abundance of mineral will be found. These lodes extend to the rich Wheal Eliza sett, and in time there will be a string of mines on the course of these lodes. This Wheal Union sett and ground further west, is bounded on the north by the Old Fowey Consols, on the south and west by Fowey and Par Consols, East Crinnis, Old Crinnis, New Pembroke, Wheal Polmar, Old Polgooth, and now South Polgooth. My masters are the principal lords from Lostwithiel to South Polgooth, and I do not think "Killas" can complain of any partiality.

I will now endeavour to answer another friend signing himself "A Miner," writing in the Journal of Jan. 8, who says he knows every foot of ground in this locality. The mines principally referred to by him are not what I call deep costly mines, but temporarily suspended mines. I reckon the following among the latter (or temporarily suspended mines):—St. Blaze Consols, 45 fms. deep (now the Rashleigh Tin Mines); Wheal Union, 40 fms. deep; Wheal Mandlin, 20 fms. deep; Par Green, 30 fms. deep. I cannot give the accurate depth of Scobles, but neither it or the north-western part of Mount are very deep. The Fowey Consols, West Fowey Consols, and Par Consols were each brought to a premature death by the stoppage of the ends when they became poor for the time, and if this were done at most of the mines in the county we should have very few working. I quite agree with "A Miner" that the prospects of the greater part of the mines he mentions are splendid speculations, and that a few thousands of pounds legitimately applied will bring them into the Dividend List. I trust "Killas" and "A Miner," or any one else, will further assist me in bringing these valuable properties before the notice of the investing public.

St. Blaze, Jan. 11.

P. RICH.

ST. AUSTELL MINING DISTRICT

SIR,—Concurrent with the revival of mining in general, a stimulus has been manifestly given to mining industry in the neighbourhood of St. Austell. This district is one of the richest in the county, if we take in the mines near St. Blaze village. The district may be taken as extending from Fowey Consols, in Tywardreath, to Great Hexas, in St. Ewe, embracing those two highly productive mines; and Par Consols, East Crinnis, West Crinnis, Pembroke, Wheal Eliza, Charlestown United, Carlezale, Great Polgooth, South Polgooth, and numerous other tin and copper mines, some of which, after having yielded immense profits, are worthy of further prosecution, which they are to receive.

Amongst the mines about to be reopened is that of Great Polgooth, a mine of such remote antiquity that we may call it pre-historical, because there are, I believe, no records of its origin. It is said to contain between 20 and 30 tin lodes, most of which have been tried more or less profitably; but their contents have not been touched below the 110 under the adit, which is about 40 fms. at its deepest point. A mine agent informed me that it had yielded in all (as known) 750,000l. profit. Messrs. Taylor are said to have profited 100,000l. during the time they held it. By the time the workings extend to the depth of Dolcoath it is not improbable that another such sum will be divided amongst the proprietors.

Another productive mine to be reworked is Great Hexas, an extensive sett, and embracing several good tin lodes. I think that the depth is about 100 fms. under adit, which, in these days, is called a shallow mine. South Polgooth, under the management of Capt. T. Parkyn, will be found, or is found, to be a great prize. I was informed by a mine agent, who visited it a few days ago, that it is likely to exceed Dolcoath in its yield of tin ore. The lode is said to be about 15 ft. in width, 8 ft. of which is fit for the stamps without any selection. I believe that the mine is held by two lessees in moieties, between Capt. Parkyn and another; but I presume that will be divided into many shares by-and-by, and offered to the public at a high figure. There is a rotary engine at work pumping and stamping. At present only 16 horses are attached to the engine, but it is intended to add about 40 more. There is also a water-wheel in

the valley lifting six heads. Wheal Eliza is just now the prize of the district. Very rich, and managed in a superior manner by Mr. R. H. Williams, C.E., who has Boscundle, adjacent, and other mines.

There is a mine sett close by Wheal Eliza in the possession of Capt. T. Parkyn, who is the lessee, or one of the lessees. It is called New Par. Its position will command a value. South Polgooth will also make amends for previous disappointments. One rich mine will pay the losses of many. The village of Polgooth will, ere long, exhibit evidences of activity equal to that of former times.

The importance of the advance in the price of tin ore from 33l. to 53l. per ton is clearly perceived in the stimulus it has given to mining speculators. If the price continues only as at present we shall have a lively year. The economy introduced in metallurgy, &c., renders the present price equal to about, perhaps, 80l. per ton 10 years ago.

Truro, Jan. 12.

R. SYMONS.

SOUTH WHEAL FRANCES.

SIR,—In reference to the latter part of the letter from Mr. Wm. Nance, in last week's *Mining Journal*, I beg to state that the accounts presented at the meeting, held on Nov. 2, included labour cost paid on Oct. 16, and merchants' bills to end of September, which latter have all been paid, not by "three months' bills" (which it is not our custom to give), but by cheque. The two engines which we purchased have long since been charged and paid for, and the only liability in respect of engines is a sum under 200l. for repairs of broad-whim-engine, the account for which has been rendered since the last meeting.

I do not know what ground Mr. Nance has for believing "that these are heavy liabilities not made known to the public," but I trust the shareholders (who are the parties interested) will accept my assurance that such is not the case, but that it has always been my desire to present such a statement of accounts as will show the true financial position of the undertaking.

Redruth, Jan. 11.

SAMUEL ABBOTT,

Purser of South Wheal Frances.

WEST PORT NIGEL LEAD AND BARYTES MINE.

SIR,—I was pleased to see the paragraph in the Journal of Jan. 1 in reference to the above mine. Being a native of the district, and knowing its mineral productions, I drew attention to it some ten years since, and had energy and capital been employed I believe ere this it would have well rewarded those concerned. The Llanbedrog Granite Set Quarries have been sold to Messrs. Roberts and Co., large granite quarry proprietors, and who are opening the Llanbedrog Quarry out, so as to work it on a large scale, and several hundreds of extra men will be employed this year thereon, which will be a great boon to the town of Pwllheli and district.

London, Jan. 12.

W. WILLIAMS.

NORTH BUSY UNITED MINES.

SIR,—There is a paragraph in last week's Journal respecting this mine undoubtedly written by one who is not a well wisher in the success of the mine, as there is not a word of truth in the statement made by him. In the first place, with regard to the tin discovered by the former company or management being nearly worked out, this is positively false. About nine months ago I inspected this mine; the lode was then stope some 2 or 3 fms. below the adit level for about 20 fms. in length, which I reported to be worth from 10l. to 15l. per fathom, and nothing further could be done without great alteration in the mode of working. There was no alternative but to sink a shaft from the surface and erect an engine, drive cross-cuts, &c. A suitable engine has been bought and erected on the mine, a new engine-shaft sunk about 40 fms. from surface, cased and divided, and made complete, all necessary pitwork fixed, and has been for some time in full operation. All this must be looked upon as dead work, in addition to which every thing at surface was out of order, and I may say the water stamps had to be made new complete. This has been done, and I am pleased to say is now in an efficient state of working, and places us in a better position for working our returns.

When the shaft got down we at once commenced to drive the 10 cross-cut south, where we intersected the main lode, and have driven about 13 fms. east by the side of a good lode, 10 fms. of which is standing whole in the back of this lode, and worth for this distance 15l. to 20l. per fathom, and judging from the stopes we have above in advance of this present end we calculate to have at least 10 fms. or 12 fms. further to drive through a good lode. The western end is driven about 9 fms.; the lode is presenting a more promising appearance, from which we anticipate an early improvement; now producing saving work for tin. We have three stopes working above this level, worth from 15l. to 20l. per fathom.

The engine-shaft is down about 7 fms. below the 10 fm. level, and we expect to cut the main lode in about 2 fms. further sinking, and no lode or branch has been seen since we passed through the first part or branch which we met with when driving the 10 fm. level cross-cut. The ground now in the shaft is favourable for sinking, and judging from the character of the ground I have every reason to believe that we shall have a good lode at the 20 fm. level, seeing that we have already opened on a good lode in the 10 fm. level for 13 fms. in length, and likely to continue. We have now commenced to open on the south lode between the adit and the 10 fm. level, where we find we have a good lode worth from 12l. to 15l. per fathom. This I consider an important improvement in the mine, as the lode appears to be standing whole altogether west of our present workings. We shall resume the driving of the 10 fm. level cross-cut as early as possible to prove it at this point. We are also driving a cross-cut at the adit level north, where we expect to intersect a lode shortly. With regard to the future prospects of the mine, I see nothing yet to alter my opinion; in fact, I have greater faith as we acquire depth, as the lodes are forming themselves more upright, and have a better defined wall. Our returns are about equal to the past, and are likely to continue. It has always been our object as agents of the mine without fear or favour to give a faithful report, which has been borne out by our returns, and when we consider the amount of work that has been done, and paid for out of returns, I think there is not much room for finding fault, and I hope the shareholders will not be so foolish as to part with their property at present knocked-down prices.

JOSEPH PRISK, Managing Agent.

THE CALLINGTON DISTRICT, AND ITS MINES.

SIR,—In my last I promised to say something more respecting the clay discovered in this district; it is decomposed slate or killas, and free from grit—in fact, I have never seen anything like it in any of the sixteen counties I have been in. Some of it is as white as the whitest of china-clay in the St. Austell district; and being so free of grit, I think it well worth the notice of manufacturers, who would be treated with very liberally.

I am very glad to see preparation being made to re-work the old Kit Hill Mine once more, and as the engine and pitwork is all in its place, it is more than probable they will soon take on many miners, and soon be returning tin; it is well known the old hill is rich in tin. Strange as it may appear, this old mine bears its age, near a century on and off, and returned its hundreds of tons of tin and wolfram, and the deepest point on the summit of the hill is only 60 fms. East Kit Hill is another mine that has also returned many tons of tin, with its engine-shaft only 15 fms. deep, with its engine, pitwork, dressing-floors, with all other requisites, still idle, not from the non-productiveness of the lodes. East Cornwall Mine, the last time it worked the company sunk 73,500l., but the engine-shaft was only sunk 4 ft.; it is now only 40 fms. from surface. They had the first 80-in. cylinder pumping-engine ever erected in the eastern part of this county to pump out the water and sink 4 ft.; what has become of it now I do not know. The last time I saw it it was at Putney, pumping water to the City waterworks. There are yet other mines in the district I intend making mention of in my next, when I am sure your readers will agree with me that the district has been ill-used. The lode at the Lady Ashburton is improving in silver every foot driven; it is the opinion of everyone that has seen it that this will be one of the great prizes of 1881.

I thought ere this we should have seen the starting of the Callington Great Consols and the Silver Hill Mines; the latter I cannot

call a speculation but a safe investment, as by continuing the tunnel a few months it would intersect some of the richest lodes in the district of Callington.—Jan. 12. — JOHN BUCKINGHAM.

NEW CATHEDRAL MINE.

SIR,—In the Journal report of the general meeting of this mine you make me say that I purchased this mine from the Stannaries Court for 1000l. Now this would have caused me a heavy loss, as the expenses incurred by the mine till it was taken over by the present company were nearly as much as the purchase money, and I made the offer to the present company to take either in cash the net amount the mine had cost me, or a thousand fully paid shares instead.

JAMES LABY.

WHEAL COATES UNITED.

SIR,—In noticing in last week's Journal a remark that richer ore was being found in depth, I have been anxiously looking for the agent's report stating what was doing in sinking, as many months have passed since the mine was in fork, and deeper levels should be reached by this time if ordinary industry had prevailed. It is reasonable to expect a much richer lode at deeper levels as each 10 fms. sunk has hitherto proved up to the 80 below adit. But with this fact before us why the sinking was not continued as soon as the mine was clear of water to that depth one is at a loss to understand. Can the manager explain the cause of delay while there are ample funds in hand to push it forward? There is great reason for complaint in the face of the facts, showing it has been a serious injury to the reputation of the mine to have postponed it.

A SHAREHOLDER.

COUSIN JAN'S CHAT.

"Well, souse, let's touch pipe abit, fur we've ben working hard, and I'm as faint as a goose chick and sweatin' like a Turk, and we sha'n't git eny more thanks fur slavin' like this to all, so I gree we'll hear all the news that owd Jan Tregimbo da know 'bout the mines an' trade that he da git from the *Mining Journal*." "Well," says Jan, "I tell 'ee what; I only wish he didn't cost quite as much as a do, add I'd hev' 'un every week; iss fie, but a's worth all the money, fur sure 'tes a treat fur we to get a squint at he once 'pon a time, fur there's all 'bout the bals at home and in foreign parts abroad, and the price of ten, and every ore that is I reck'n, and ef ever you da want eny readin' 'bout mines and mining git the *Mining Journal*, boys. And I'll tell 'ee what, comrades, we'll all club together and buy 'un every week of you, ve no objections, and let's give Mr. Editor a hearty cheer, and wish 'un a Happy New Year and plenty of 'um. Oh, 'ess, says 'One and All,' and ef he was here now I'd treat 'un to a glass of toddy." "Well, what did'ee see in the Journal last week, Jan?" "Well, laast week there was a passel in 'om 'bout this year dynamite. The patent, it da seem, is most 'bout worked out, and some gentlemen hev' gree'd to mit and oppose 'un being granted agen. Now, I dare say the one that da patent he is in a fine wisht fix, fur most likely they theat gentlemen will carry the day. I tell 'ee what I'm most afeard of is that thick dynamite want be as strong, not nothing like so good 'gainst one company of adventurers hev' a poddled with 'un an' another, and there's sure to be somebody blown to 'lems, fur tes'n't everybody that da understand making that thear trade, and how be we poor miners goin' to git through as much ground, fur in one end in the 40 fm. level 'tes as hard as iron, but a vury kindly lode in 'om, and I shud like to see 'om tried fear and fifty. Now, we shud soon find out ef we had'n't goat some good old dynamite to blast 'em weth, but a must be made cheaper, patent or no patent. And whoever gets 'un will hev' to find that out, or a will sca't all our bals, that's certain. But it's a grand invention, and thanks should be given to Maester Noble for inventing such a grand thing, and I da hope he'll live long to enjoy hes fortune. That I da suppose he've made. Sir John St. Aubyn you da know is a vury good member, an' all the St. Aubyn's hev' advocated from their earliest days the miners' cause, an' he da say some years ago at a ploughing match that Jan and Will, two Cornish miners, laid a wager which of 'om was the best ploughman. The umpire was appointed, each of 'om had his chance an' turn at ploughing, an' the umpire he says—'Jan, thy ploughing is the worst I ever seed in my life, an' as for Will's, 'tes no ploughing at all.' Well, now, Pudden' Will, unless we da git the dynamite cheap the same will be said of we—that we're no miners at all, nor doant understand mining, and we shall be no where, for everybody will be gwa'in afore us, for you do know as well as me that the dynamite bill is a nation heavy one, an' a vury soon break our backs when the mine es rather low in money, an' I da hope we shall git 'un cheap, fur a 'es a grand thing, an' ef we doant hev' 'un we shall be all behind, like a cow's tail. But if they'll only give us good steel, good fuse, good dynamite, an' a sensible cap'n that give we a fair price, then, Pudden' Will, with the motter 'One an' All,' an' a long pull an' a strong pull altogether, we'll take our proper stand, an' beat us who can. That's what I say." "Iss, iss, Cousin Jan, that of 'un; you've goat the right end of the stick this time. Times are different now to what they was when we were little taker's meen, Jan, an' unless we work hard, boay, we shaant hev' no fish an' tatics, no tater pastie fur to show you. An' how do 'ee think ten is looking, aye, Jan?" "Oh, tes'n't the price a ought to be, but 'tes middling you know, an' I da hope sure he'll soon improve, for they thear furrin' mines hev' most 'bout ruined we Cornish folks. An' I wish they were all knacked." "Iss, you'm 'bout right, Jan, fur I blow they theare mines be most 'bout all sells. I can't help thinking when I'm turnin' holes some down in the 60 why the great mining gentlemen put their money in 'furrin' mines instead of one's at home. Thear's plenty of good ones lying idle that's a brave sight more kindly; and how's thy pitch lookin' 'un, aye?" "He's as hard as a flint, but I fancy a's gwa'in to be easier ground 'fore long, an' I shoudn't wonder if we don't cut a brave keenly lode in 'om." "Well, I hope thees't will; but hev'ee heard 'bout Capt'n Frank, what he da do down to Wheal Squiddles?" "No, I hant, Jan; what 'bout he?"

"Aw a's was expecting to hole to the 100, an' he comes down one day, an' ses he, 'Well, men, and have you holed yet?' 'No,' says the taker. Then he took out the compass, an' squinted one way and thess another, an' ses he 'Then try here, and drive north.' Well, so they did, an' couldn't hole, an' a had to get another cap'n in, and ses he 'Drive south.' The pare did, and verry soon they heard thass sounding, an' holed in a verry short time. An' how the men did laugh and grizzle 'pon 'om, far they knew a's was a great owd chuckle head afore." "Iss, that's the way weth they theas cap'tns, thear's one-half don't know nothing, and Cudden Jan, there's two sorts of cap'tns—one is a regular owd knacking soart; wherever he da go 'fore verry long 'tes knacked, an' all the things sold; and the other soart is always setting on poor owd bals that's 'bout worked out, and finding grand lodes under the engine-house an' all sich places, an' no sich thing to all no ore in 'om. Iss, fie, an' they theas cap'tns generally go at a right hand man that da do all the dirty work for 'un, grind up some fine stones of tin, and walk in the level an' throw 'om up against the wall, and make out 'tes verry rich, and bring a passel of purty stones of ore from some rich mine, and stick 'om up about, and make 'um look well till the adventurers do buy 'un, an' then they da find it out hot an' sweet afterwards." "Aw, iss, Cudden Will; but our cap'n edn't a man like that—a, ess fine and pleasant to taalk weth, and a da joke away with us some grand ho da." "Iss, I like he well, and he da give we good fangings, too; an' da know ore—not like that little whipper-snapper that da come down from London all geed up weth long white cuffs down 'pon hes hands, an' they as soft as growder never handled a shovel hilt or a pick or gad in all hes born days. Law, when a fust went underground why a verry nearly faled away in the shaft, an' he was sweatin' like a mad thing for fear never thees't know seed a mine in hes life afore, an' when a seed some copper in the bottom of the whim shaft he really thought 'twas a gold mine. Oh, a poor silly cap'n he. Iss, the adventurers had to send un back whear a come from, for the men wouldn't work under un, nor pay any attention to un. Well, we've had a good talk, and I've enjoyed meself fine. You an' I'll agree; we'll mit at the Fifteen Balls to hev a New Year's pint an' taken over fifty." "Iss, but 'fore I go I'll tell 'ee what I was thinking—that theas ought to be a prize offered fur the best steel and the best dynamite that can be made, and fur the best man that da sharp'y drills. Less time taken up in sending tuel's up and down and one good borer is worth half a dozen bad ones. Doesn't a see, the bits must be hammered

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SIR,—I h formation capital of 1 in saying it will pay a neighbour gladly tak friends to d proposed in must for cer places me there up to

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more, and not heated as much, an' seasoned better. Then doesn't a see, boy, thes'll be more trade broke in the time, an' all the surface hands will be kept worked; more tin and copper will be returned, an' all will be benefited from the chearmen of the company to the smallest boy 'pon the dressing-floors. Now, that's the way to make bays pay in my opinion." "Iss, thees't right; but 'tes time fur me to go long back to my owld pitch again, so wish ee well." "Same to ee, boy." ONE AND ALL.

THE CELEBRATED LANGSTONE MANGANESE MINES, TAVISTOCK

SIR,—I have this day had a prospectus placed in my hands of the formation of a company to work these celebrated mines, with a capital of 10,000*l.*, in 10,000 shares of 1*l.* each. I need not hesitate in saying it is one of the best mining properties in the district, and will pay a larger dividend per share than any mine yet worked in this neighbourhood. I have myself applied for 50 shares, and would gladly take more if I had the means to do so. I shall also advise my friends to do the same, feeling sure that if the property is worked as proposed in the prospectus that within a few months large returns must for certain be made. Being a resident in the Tavistock district places me in a position to know the views of some of those who worked there up to the stopping of the mine by the late company.

Some have told me that they would rather have the minerals than the freehold surface of the property. This is saying a great deal, as I believe it is rather a valuable estate. I am also informed that the day the mine was stopped by the late company, some 30 years ago, they never drew richer manganese, nor the mine was never looking better than it was then. It is well known the mine was not abandoned for want of ore, but owing to manganese having fallen in price, in consequence of great discoveries in other parts of the country.

The royalty was also then 1*l.* per ton, and which the late lord refused to reduce, owing to his having entered into an agreement with some member of the family to pay them 10*s.* per ton. He, therefore, naturally felt that if he reduced the dues the property would be worked without his reaping any benefit. It has been stated that before the sudden drop took place in the price of manganese the late company was making a net profit of 1000*l.* per month.

The Chillaton Manganese Mines, I am informed, on an outlay of 2000*l.*, yielded in four years a net profit of 80,000*l.* These Langstone Mines are believed by everyone I have come across, and who know the property well, to be far superior to the Chillaton Mines, and likely to make much larger returns on a similar outlay. Capt. Doidge, manager of the Chillaton Mines, states in his report that the Langstone Mines exceed anything he has ever known in this district belonging to any manganese mining company. In fact, Capt. Doidge's report, from beginning to the end, confirms what I have heard from others. I have met with Capt. Doidge several times, and from what I know of him would be prepared to invest in any manganese mines he advised me to. I am quite sure that if these mines are properly brought before the public the shares will be applied for over and over again.

AN APPLICANT FOR SHARES.

Tavistock, Jan. 13.

FOREIGN MINING AND METALLURGY.

The French iron trade exhibits a generally favourable appearance. A good tone appears to be assured to the iron market for some time to come, especially in presence of the moderation exhibited by forgers. The majority of producers appear, indeed, disposed to be contented with the progress which they have already made, and to be resolved not to launch out into any exaggerated rise having no solid basis. The forgers of the Nord had a meeting last week at Maubeuge, and after a good deal of discussion the meeting resolved to advance the basis price of iron from 6*l.* 16*s.* to 7*l.* per ton. The orders now in course of execution by the forgers of the Nord are stated to amount to 160,000 tons in round figures; this would represent nearly eight months' work. The rail mills are also actively engaged, and very few more orders can now be accepted with delivery this year. A syndicate has been formed under the auspices of the Crédit Lyonnais for working the Thomas-Gilchrist process of dephosphorization. This syndicate comprises the Creusot forges, the Châtillon Works, and the house of Wendel Brothers.

The Belgian iron trade has sensibly improved during the last few days, and most branches of Belgian metallurgical industry now show firmness. No positive advance has yet taken place, and some time must probably yet elapse before it will be witnessed, but the tendency to fall which had been observed in prices has been checked, and quotations have become firmer. The demand is also more active. The construction workshops are overdone for the most part with orders; many of them have, indeed, contracts on hand which will occupy them until August, 1881. It is felt also that Belgium cannot fail to profit from the industrial activity prevailing in neighbouring countries, such as England, Germany, and France. The Chinese Government is stated to have ordered some armour-plates in Germany. Italy is preparing to increase her fleet, and a demand for armour-plates is anticipated in that quarter also. New adjudications of rolling stock are expected to take place shortly in Belgium, and it is remarked that the Northern of Spain Railway Company is in the market for 1200 trucks, while the Eastern of France Railway requires 800. From Charleroi comes the announcement of an official advance of 4*s.* per ton in merchants' iron. For the rest proposals of new business flow in freely upon Belgian firms, although at somewhat low prices.

The French coal trade has been influenced to some extent by the colder weather which has prevailed. Transactions have acquired much more importance, and prices have hardened. The German coal trade has suffered from inundations. Upon the Rhine communications have been interrupted, and several works have been stopped in consequence of the water having reached their boilers. Some collieries have been completely inundated. Colder weather has given a certain stimulus to the Belgian coal trade, which had begun to show symptoms of weakness. It is perhaps too late for the season to prove altogether a good one, but the demand for domestic qualities of coal has shown a marked recovery, and the year opens under rather favourable auspices. The demand for industrial qualities of coal is also well maintained, and as quotations appear likely to revive, there is not much ground for complaint. Prices have not varied, but the markets have at the same time acquired additional strength and firmness. The exports of coal from Belgium in the first eleven months of last year amounted to 4,106,506 tons, as compared with 3,994,363 tons in the corresponding period of 1879. The exports of coal to France figured in these totals for 3,897,231 tons and 3,780,596 tons respectively.

LAS CALDAS FREEHOLD MALACHITE COPPER MINE.—The last report received, dated Jan. 4, states that all the men have been paid up to Dec. 31, and their receipts forwarded to the London office. Now that the mine is looking so well a captain of greater experience than the present one is about to be appointed, and the deep adit, or gallery, will be most vigorously pushed on at a very considerable depth. The end being already within about 10 fathoms from the point where the rich body of ore will make, it is expected that within the next three months the hopes of the shareholders will be realised. The branches of rich ore and the new lode laid open at surface still continue to look most promising, yielding ore of similar character as in the London office. Shares firm at present prices.

INDIAN GOLD MINES AND THE WATER QUESTION.—In connection with mining wherever carried on the storage of water and its subsequent utilisation is always of paramount importance, and in connection with Indian gold mines the ingenious invention of Col. Francis Applegath, of the Madras Staff Corps, for improvements in weirs and sluices, certainly seems deserving of a trial. According to one arrangement applicable for small or temporary weirs that may be readily removed from one point of a stream to another, he constructs the same of upright cast or wrought iron sheets or plates of convenient lengths riveted or bolted together, and strengthened by ribs, flanges, or stays, the plates being sunk to any required distance into the bed of the river, and being by preference bevelled off to a thin edge at bottom to facilitate their penetration. At the surface of the bed they have by preference fixed or formed on them horizontally projecting flanges, either on one side or on both sides, for increasing

their stability, and to serve on the overflow side as an apron for preventing the falling water from undermining the bed. Such aprons may extend some distance in front of the weir, and may be fixed down on the bed by projecting ribs entering the soil, or by screw or other piles to which the apron is fixed. A range projecting upwards may also be formed at the end of the apron so as to retain a certain quantity of water upon the same, and thus break the force of the water falling upon it. The weir may have apertures at one or more points of its length for allowing a stream of water to flow through, and such openings may or may not be provided with doors or valves to act as sluices. The details of the arrangement would, of course, be modified to suit special circumstances, in which cases Colonel Applegath, who is at present in London, would no doubt supply the necessary information.

REPORT FROM CORNWALL.

Jan. 12.—Probably there will be little of exceptional interest in mining matters during the current month, and we do not anticipate having much to record beyond the continuance of steady progress in the mines already in operation, and the gradual extension of mining operations in one way or another in almost every mining district. In fact, the less we have of a sensational or exciting character just now the better, that the work of consolidating the advantages already won, and of assuring the continuance of our present prospects—so far as they are within control—may go on unchecked. The year has evidently opened with an amount of confidence in mining adventure, and a disposition to invest capital in promising concerns, to which we have long been stranger, and perhaps this is the explanation of the sudden change which January has already seen upon the share market—changes which otherwise really appear on ordinary commercial considerations unaccountable.

Apocryphal of the recent discovery of gold at Fortescue (Stannagwyn) a few notes on the occurrence of gold in Cornwall will not be without interest. The existence of this metal in the stream works has been known for many centuries, and the old fashioned streamers used to carry quills in which to deposit such grains as they might find in the course of their hunt for tin. Carew refers to it as being in his day an article of some little commercial value, so far that it was a well recognised practice for the streamers to sell the contents of these quills to the goldsmiths, and it was contained in such quantity in a couple of blocks of tin sold by Robert Davy at Bordeaux in the reign of Elizabeth, that the Florentine merchants valued them by reason of their auriferous contents to be worth all the other blocks together. Probably there never was a greater find than just six score years since at St. Stephen's, in Branwell, when, according to Borlase, the gold was so thickly interspersed with the tin that Mr. Walter Rosewarne, the smelter, taking it for pyrites, blamed the tinners for not having burnt the ore before bringing it to him. Still later Polgooth yielded not only grains in quantity, but fair sized nuggets, and there is hardly a district streamer for tin which has not produced this more precious metal; though for a long time it has been regarded rather as a mineralogical curiosity, or as the material for rings and pins and the like, for those who were faddy enough to wish to adorn themselves with Cornish gold. Hitherto it has been almost universally found in stream works only, and very rarely in the matrix, though yielded by some gossans in very small and by no means paying quantities. Indeed the occurrence of lode gold in Cornwall has been altogether denied, but not long since we saw a fine specimen of gold in the matrix, amounting to a small nugget, from the Kit Hill district, which, as our readers know, has at times proved rich in native silver.

All accounts seem to agree that Mid-Cornwall, or the St. Austell district, has proved most rich in this precious metal, and, therefore, there is nothing that need cause surprise in the news from Fortescue, though it will be quite a "new departure" should gold mining, not as an accident but as a definite pursuit, be introduced into the county. It was tried on in Devon at North Molton not many years since, but the prospects were not encouraging. Among the localities which may be specially particularised as auriferous—taking that phrase for what it is worth—are Carnon, Kenwyn, Probus, Creed, St. Ive, Ladock, St. Stephen's, St. Mewan, St. Austell, Par, Redruth, Kea, and Kit Hill; and in Devon, North Molton and North Fawton. The largest piece ever obtained in Cornwall is recorded by Mr. Collins to have weighed over eight guineas (more than 2 ozs.), and we have seen pieces from the St. Austell district which weighed more than an ounce. Probably the finest specimens of Cornish gold now extant are those in the Scorrier collection, and in the cabinet of Mr. R. G. Lakes, of Trevanick, St. Austell.

There is evidently a feeling on the part of West Basset adventurers with regard to the South Frances amalgamation that they can afford to bide their time, and we are inclined to think they are correct. Probably before six months are over there will be a much stronger feeling in favour of the union on the South Frances side, but it is by no means quite so certain with the present prospects of West Basset that the time for action may not be found to have passed, or at any rate that the probable conditions will be seriously varied. The proposal to pay the West Basset committee is a wise one; unpaid directorates, as a rule, are not bodies to be commended, though, of course, there are many exceptions, and the moderate vote of West Basset is so far extravagant that it will go very little, if at all, beyond paying personal expenses.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Jan. 13.—The quarterly meetings of the iron trade were held in Wolverhampton and in Birmingham to-day. At Wolverhampton, as had been generally anticipated, prices remained unchanged upon those of three months ago. For all mine Staffordshire pigs the quotation for hot blast sorts was 3*l.* 5*s.*, and for cold blast 4*l.* 5*s.* per ton. There was a plentiful supply of common pigs, and vendors were prepared to accept as low a figure as 2*l.* Finished iron was strong at 7*l.* 10*s.* per ton for marked bars, with the usual 12*s.* 6*d.* extra for the make of the Earl of Dudley. From these figures prices ranged to as low as 5*l.* 12*s.* 6*d.* for common bars. Galvanising sheets were by some vendors quoted 10*s.* up, the makers being mostly well sold forward. The makers of galvanising iron, however, were some of them differently situated, and these were prepared to accept orders at a reduction of 5*s.* Hoop and strip iron was not much sought after. The former might have been bought at 6*l.* 10*s.*, and for the other as low a figure as 6*l.* 5*s.* would have been taken. Coal was unchanged in price, at from 5*s.* to 7*s.* 6*d.* for forge coal. Cokes were abundant.

Much dissatisfaction continues to be expressed by the ironworkers at the reduction of 3*d.* per ton in their wages which has just been made. At a meeting at Bilston a resolution has been passed instructing the operative secretary to the Wages Board to give a month's notice for a reconsideration of a sliding scale. The men were of opinion that sheets, hoops, and plates, and not bars, should be the basis of the scale, inasmuch as those products were now the staple trades of the district. For every one bar-mill there were, it was asserted, nearly 20 at which hoops, sheets, and plates were turned out. An important representative meeting of the men is to be held at West Bromwich on Monday.

At close of the Birmingham Change ruling quotations were 7*l.* 10*s.* for bars, 12*l.* to 12*l.* 10*s.* for stamping sheets, 7*l.* 10*s.* to 8*l.* for tank plates, 5*l.* 15*s.* for fencing bars, Staffordshire all-mine pigs, 3*l.* 5*s.* for hydrans, 3*l.* 2*s.* 6*d.* for part-mine, 2*l.* 12*s.* 6*d.* for common 2*l.* 2*s.* 6*d.* for Barrow, grey forge 3*l.* 15*s.* to 3*l.* 12*s.*, and Blacnavor 3*l.* 15*s.*

The work at No. 1 shaft of the Cannock and Huntingdon Colliery Company is progressing satisfactorily. Concrete has now been placed between the outside side of the tubbing and shaft, and by the 15th inst. it is expected that the water will be drawn out of the pit and the bottom of the column of tubbing removed. When this is done the sinking of the shaft by the ordinary method will be commenced.

The second shaft upon the Hamstead Estate has now been got down to 250 yards, and permanent winding plant is being fast erected which will be capable of drawing from one shaft between 4004 and 5000 tons a day.

A public meeting will be held in Wolverhampton on the 29th inst., when the arbitrators under the South Staffordshire Mines Drainage Acts will hear appeals against the proposed amalgamation for drainage purposes of the Bilston and Tipton districts.

At Hales Owen Police Court, John Johnson, certificated manager at Witley Colliery, was fined 5*l.* and costs for employing persons in

the mine when there were not two distinct means of ingress and egress.

At the Tin-Plate Association meeting at Birmingham on Jan. 12 the Employers' Liability Act, as it affected tin-plate manufacturers, was considered, with a proposition from the Provident Clerks and General Accident Insurance Company to insure the employees at a low rate, but the matter was eventually left to the consideration of the council. It was resolved to urge upon the trade the importance for manufacturers furnishing statistics as to their capacity for production, the meeting unanimously agreeing that this was absolutely necessary to enable them to determine the over-production question. The association resolved to leave each maker free for the present to act independently with respect to the price of tin-plates.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Jan. 13.—Referring to the Llan-hir Mine, near Taliesin, I can assure Mr. Melliquam that no one has mentioned this mine to me either favourably or unfavourably. I believe, however, that some time back I noticed in one of these reports the renewal and progress of the work at the mine. I wish the mine success. I should, however, expect the district to produce better lead mines than copper mines. I will take an early opportunity of visiting the mine. By the way, would "H. E. R." give the date of his visit to the mine when the agent refused admission? The captain has no recollection of the occurrence.

I should be obliged if Mr. John Corbett, M.P., would explain what the fact that Cheshire is now a maritime county has to do with the extent of its salt deposits. I should have thought that the relative size of the Cheshire and Worcestershire salt deposits depended rather upon the relative extent of the salt bearing division of the New Red Sandstone than upon a present inland or maritime position.

The protracted inquest into the cause of the recent boiler explosion at the Acrefair Works of the New British Iron Company, terminated on Tuesday week by a verdict that the company has erred in judgment in not having the boilers stripped for examination, and that the Midland Boiler Insurance Company should have had the boilers examined inside. One of the colliers in the employ of the same company at the Green Pit, where several explosions have taken place, has been fined 5*s.* and costs for having a lighted pipe in a dangerous part of the mine. Considering the tremendous issues hanging upon such an act the fine seems ridiculously small.

The talk of a proposed extension of the Snailbeach Railway to the region of the Tankerville Great Consols Mines is revived, and I am glad to report some reduction in the rates charged for carriage upon this line.

The large limestone quarrying undertaking known as Savin and Co. started under new management with the new year, and with a revival in the iron trade we may hope for a good year for the company.

TRADE OF THE TYNE AND WEAR.

Jan. 12.—There is little change in the Steam Coal Trade north of the Tyne—that is, the Hartley steam coal trade; it is, on the whole, rather dull, but not more so than is usual at this season of the year, when the Baltic and many other markets are closed. The gas coal works in Durham are fully employed, and the shipments at Tyne Dock have been large during the past few days, a considerable improvement upon the previous week. Contracts have been made in several instances at a slight improvement in prices, and the prospects of the present year are good. A fair trade doing in coke. The improved tone in the iron market has given increased activity to that trade, and there is a prospect of increased prices. The house coal trade has improved a little, and there is a fair demand for home consumption, as well as coastwise. There is an increased demand for small and manufacturing coals of all kinds, consequent on the increased activity in the iron and other trades.

We learn that the coal imports into London for the past year have largely increased by sea, while the quantity per rail has been much less. The coals sent to the Thames from the North-Eastern ports were 3,483,232 tons. It is evident that this trade is again improving; it is growing, and this has, no doubt, been brought about to some extent by the increase in the supply of large steamers which carry the coals from those ports to the Thames or any other destination at a cheap rate. The Metropolis was at one period almost solely supplied with coals from this district, but this trade has for a long period been declining, while the Midland coals were poured into London in increased quantities by rail; the tide has, however, evidently turned, and there appears to be a fair prospect of the house coal trade from the Tyne and Wear to the Thames being once more a valuable one. House coals of the best quality can be worked here and sent to London at a cheap rate. All that is required is a better means of reaching the consumers there, without the intervention of merchants or coal factors, who generally manage to net all the profits.

There has been no progress made yet with respect to the Employers' Liability Bill towards a settlement of the scheme for mutual insurance between the masters and workmen in this district; the difficulties to be met are certainly formidable, but we do not see any reason why they may not in time be adjusted. Such an arrangement, however, ought not to be entered into without due consideration and full discussion. This question is commented on at some length in the monthly circular issued by the agent of the Durham Miners' Union, Mr. Wells Crauford, and he remarks that he has always advised the miners not to contract themselves out of the Act. He says that they assisted to get the Act on the ground that it was urgently required, and he considers it is their duty to adhere to it, and continue at all events in the main under its protection. He fully endorses the substance of the resolution passed at the last council meeting of the Durham Miners' Society—"That the owners have adopted an undignified attitude in threatening to stop the payment of smart money and the contributions to the permanent fund." There is no doubt that smart money has been paid for a very long period, and it is possible that those payments may now be considered a sort of vested right, but the payments of the masters to the permanent relief fund, which are very liberal, are certainly entirely voluntary, and cannot be brought into the same category as smart money. On the whole, the proposition of the masters appears to be fair and liberal, and its adoption would, we believe, confer more benefits on the men than can be derived from the uncertain results to be expected when the Act is subjected to the ordeal of the Law Courts.

The iron trade has fluctuated a good deal during the week, but, on the whole, the advance continues. No. 3 is now quoted 41*s.* 3*d.* to 41*s.* 6*d.* for the present month. Makers still ask 42*s.* to 42*s.* 6*d.* for delivery up to April. The stock in warrant stores is fast increasing; Messrs. Connall's stock on Friday last was 130,000 tons. The result of the returns show that there was a make of 2,510,853 tons for the year, nearly 400,000 tons in excess of the production of any previous year in the history of the trade. There was an increase of 48,238 tons over the stock at the end of 1879. The manufactured iron trade continues very steady; 7*l.* is now asked for plates, 6*l.* for angles, and 5*l.* 15*s.* for bars. The Glasgow iron market is reported very firm, which has a good effect in the market here. The Cleveland ironmasters have published statistics, from which an approximate estimate can be given of the average output of the blast furnaces in Cleveland and Durham district. In the decade which has just ended there has been a large increase in the pig-iron produced by each furnace. It was a little over 15,000 tons per annum per furnace in 1871; in 1874 it rose to 16,000 tons, in 1875 to 17,000 tons, in 1876 to 18,000 tons, and in 1877 it was 20,000 tons, and from this it has not moved in any great degree until last year. For that year there is ground to believe that it will exceed 22,000 tons per furnace.

At Middlesbrough on Tuesday there was a fair attendance, and the confident tone of last week continues respecting the business expected during the present year, but prices at the moment have relaxed a little, from 3*d.* to 6*d.* per ton. There were a few gentlemen present from other iron districts at the close. No. 3 was quoted 41*s.* to 41*s.* 3*d.* per ton. The output of pig-iron is now on an enormous scale, and if the trade holds out the make will far exceed all previous years. A good trade for this iron is expected to be developed

on the Continent, and in Germany especially. The steel trade gives great promise, and it is attaining large dimensions. The iron ship-building trade is likely to be obstructed a little by the demands of the workmen for higher wages.

As usual at quarterly meetings there were a few exhibits. The Nickel Plating Company of Stockton showed some articles finely plated, and also sections of machinery. Young, Dance, and Co., Newcastle, showed glazed bricks, &c. Messrs. Hammond and Co. exhibited the Orion patent gas oil lamps. Those lamps make their own gas while burning, and will, it is stated, at a low cost light houses and villages in isolated places in a brilliant manner.

THE KIT HILL GREAT CONSOLS COMPANY (LIMITED).

Cornish tin mines have from time immemorial been celebrated for their productiveness. It would be impossible to state, with any accuracy, what amount of tin has been raised from the metalliferous strata, which extend in large uninterrupted masses from Dartmoor, on the confines of Devonshire, to the Land's End, beyond which the Longships Rocks and the Scilly Islands continue the formation in the same general direction; but it has been approximately estimated that not less than 200,000,000 lb. worth of tin ore has been mined and sold in Cornwall, at prices varying from 35s. to 100s. per ton, the present price being from 55s. to 60s. per ton.

A brief glance at the chief groups of mines in this South-Western Peninsula county may be of interest at the present moment, seeing that there has been a marked resuscitation in the mining industries of the kingdom, and capitalists are displaying a willingness, and even an eagerness, to invest in British mines, situated in favourable localities, and started under good auspices. Starting at the extreme south-western point of the granite range of hills which extend across the county to Dartmoor, the first group of mines is the St. Just. The best known of this group are the Ding Dong, Wheal Owles, Levant, Balleswidden, the celebrated Botallack, and several others of minor note. The Botallack Mine attracts attention not only from the riches which have been obtained from it, but also from the fact that some of the underground workings extend in the solid rock $\frac{1}{2}$ mile under the bed of the Atlantic. In July, 1865, the Prince and Princess of Wales, accompanied by the Duke and Duchess of Sutherland, and other illustrious personages, made the descent of this mine. The next important group is the Marazion, on the east of Mount's Bay, comprising, amongst other mines, the Great Neptune, South Great Work, &c. Next the Wheal Vor group, situated in the richest locality for tin which has, probably, ever been discovered in any part of the world. From the Great Wheal Vor the monthly sales at one time amounted to 200 tons. The ores smelted on this mine are said to have realised 2,500,000l. to 3,000,000l. The other important mines in this group are Great Wheal Fortune, Great Work, and West Godolphin. Passing on westward, we come to the Helston, the Crown, and Wendron, and the Gwennear groups; and a little further on the Camborne and Illogan group, a locality which equals, if it does not excel, all others in the importance and magnitude of its mining operations. Enormous returns have been made from some of the numerous mines in this important group. Carn Brea is estimated to have returned profits exceeding 300,000l.; Tincroft, 300,000l.; Dolcoath, 480,000l.; North Roskear, 300,000l.; Stray Park, 100,000l.; Wheal Seton, 100,000l.; and many of the other mineral properties in the locality have yielded profits approaching the same large figures.

Passing on to the St. Austell group, many rich mines have been worked here for both tin and copper. The mine of most note was the Powey Consols, which produced large quantities of ore, and paid upwards of 500,000l. in dividends. The Wheal Eliza Consols, which is worked for tin, has also produced enormous quantities of ore, and handsome profits to the adventurers. Passing the Liskeard group, where the South Caradon, West Caradon, Marke Valley, Phoenix, and several undertakings have returned very large profits, we next come to the Callington and Calstock group. This district extends round the base of KIT HILL, and thence eastward to the right bank of the River Tamar, which separates the two counties of Cornwall and Devonshire. A few miles further eastward the granite range is continued by the hills of Dartmoor.

At various times the mineral deposits around Kit Hill have attracted the attention of mining adventurers, and several of the mines have produced large returns of tin. Recently renewed efforts have been made to develop the enormous wealth which undoubtedly exists in this locality, and we may shortly have occasion to refer to projects which are at present still in an incomplete state. At the present moment our wish is to call the particular attention of investors to THE KIT HILL GREAT CONSOLS COMPANY (LIMITED), the prospectus of which appears in another column, which is now brought before the public under the most favourable and promising circumstances, and by gentlemen whose names are a guarantee that success will be achieved if success be possible. The company is formed to purchase the leases of the Kit Hill United and Excelsior Mines, the history of both of which properties is well known to all Devonshire and Cornish miners.

For a great many years the property was in the hands of one gentleman, who did an immense amount of work, which of course will immediately benefit the company. A 30-inch cylinder engine was erected on the apex of the hill, and two engine-shafts were sunk—a south one 40 fathoms, and a north one 60 fathoms deep, and from the workings in and around these shafts there was sold 17,372 lb. worth of tin, 650 lb. worth of wolfram, and 48 lb. worth of copper ore. During the latter part of the working (which suddenly came to a standstill in the autumn of 1864, owing to the cylinder of the engine splitting from top to bottom in consequence of its attachments exceeding its capacity for drawing), the north shaft was considered the most important point of operation, a splendid lode of tin having been discovered in cutting the plat at the 60. A level was driven both east and west on its course for about 30 fms., yielding in places from 25 to 30 cwt. of black tin (tin ore) per fathom, which at the present price of tin ore of 55s. per ton would be equal to a value of 70s. to 80s. per fathom. In the same shaft, sinking below the 60 fm. level, there is stated to be as fine a character tin lode as anyone could possibly wish to see in any tin mine in Cornwall or Devon. In fact, all the evidence goes to prove that at the time the accident happened to the engine the mine altogether never looked better; but the proprietors did not then care to put the engine in order, nor would they sell the property then nor afterwards, although several times large sums of money would have been paid for it. It was only after long negotiations that the present vendors were able to secure the property.

From the prospectus it will be seen that on the resumption of work the intention is at once to repair and set to work the 30-inch cylinder engine on the top of the hill, and as quickly as possible drain the north shaft, when it is considered that immediate returns of tin will be made in paying quantities. It is proposed to drive a tunnel at right angles with the lodes, which will eventually drain the mines to the great depth of about 120 fms., thereby saving the cost of pumping. It is considered that during the driving of this tunnel the extraordinary number of from 10 to 15 known valuable lodes will be intersected; and the importance of this will be better understood when it is stated that the position of these lodes, with respect to the granite, is precisely similar to those valuable lodes in the Carn Brea Hill granite district, in and around which granite hills are some of the richest tin lodes in the world. An important feature is that the property is in close contiguity with the East Cornwall Mineral Railway, so that materials can be brought to, and ores removed from, the mines at the smallest possible expense.

The capital of the company is fixed at 50,000l., in 25,000 shares, of 2s. each, of which 5s. is to be paid on application and 10s. on allotment. It is not anticipated that any further amount of capital is likely to be required or called up in the present year, beyond a further sum (if any) of 2s. 6d. to 5s. per share. It will be observed that the shareholders of the Devon Great Consols Company are to have the first option of subscribing for 10,240 shares, and the shareholders of the Devon Great United for 12,000 shares, in proportion to the shares in those companies respectively held by them. The directors are—Lord Claud Hamilton and Mr. H. S. Morris, both directors of the two above-named mines; Mr. Henry Wilson, a director of the Devon Great United, Tankerville Great Consols, and Mysore

Reefs Gold Company; Mr. Samuel York, director of Tankerville Great Consols and Devon Great United; and Mr. Henry Bentley, who has been long identified with mining, and who is a member of the well-known firm of Henry Bentley and Co. (Limited) brewers, of Leeds. Mr. Bentley is also a director of Tankerville Great Consols. An important addition to the strength of the board will be made shortly, inasmuch as Mr. Peter Watson, the Chairman and managing director of Devon Great Consols, will be invited to join the board as soon as the purchase of the property is completed. The legal part of the business has been entrusted to Mr. G. H. Barber, the able solicitor to Devon Great United; and Mr. W. H. Allen, secretary of Devon Great Consols and Devon Great United, will fill a similar position in connection with the new company. The interests of the shareholders will be looked after on the mine by the same experienced gentlemen who have contributed so much to the wonderful success of Devon Great Consols.

In conclusion, it only remains to be said that the general opinion of practical mine managers, mine agents, miners, and others who well know the property and district is that with vigorous prosecution there will in a very short time be opened up one of the most profitable tin mines which has ever been developed in the eastern part of Cornwall. Appended to the prospectus are reports from Capt. Isaac Richards, manager of Devon Great Consols and Devon Great United Mines; from Capt. William Cleme, agent of these two mines; from Capt. George, manager of Marke Valley Mine; and Captain George Rowe, manager of Wheal Crebor, together with an important report from Mr. T. Currie Gregory, C.E., F.G.S. All these gentlemen concur in the opinion that on being properly developed Kit Hill and Excelsior, as now combined, will prove one of the greatest and most profitably productive mines in the county.

In estimating the probable value of a tin mine, it must always be borne in mind that as depth is attained the mine generally increases in production and value. There seems to be as many as 15 or 20 veins or lodes, many of which are believed to converge; and this is an important point, as a junction of lodes generally means a great increase of returns. It may be mentioned, although it is not referred to in the prospectus, that several of the rich veins will in all probability be intersected after a few fathoms driving. From all we can gather there seems every prospect that this important property—about the most extensive in Cornwall—will when properly developed equal, if not exceed, in point of production and profit the most celebrated tin mines of Cornwall.

The following statistics will be read with interest, and will bear out all that has been stated above regarding the richness of the leading Cornish tin and copper mines:—

STATISTICS OF 12 TIN AND COPPER MINES IN CORNWALL, MADE UP FROM THE "MINING JOURNAL," JANUARY 8, 1881.									
Mines.	Amount of calls made.		Total amount of dividends paid.		Present value of mine.				
	£	s. d.	£	s. d.	£	s. d.			
Carn Brea	56,375	0 0	308,000	0 0	125,000	0 0			
Dolcoath	46,146	4 0	513,640	10 0	251,316	0 0			
East Pool	3,120	0 0	140,080	0 0	230,400	0 0			
Penhalls	19,375	0 0	18,750	0 0	11,250	0 0			
Phoenix United	66,150	0 0	1,500	0 0	30,000	0 0			
South Frances	34,275	0 0	183,487	0 0	56,250	0 0			
Tincroft	69,000	0 0	302,550	0 0	135,000	0 0			
West Seton	30,400	0 0	267,600	0 0	22,800	0 0			
West Basset	42,333	6 8	161,100	0 0	93,000	0 0			
*Wheal Eliza Con.	18,432	0 0	43,520	0 0	61,440	0 0			
Wheal Kitty	22,334	0 0	55,170	15 0	18,039	0 0			
Wheal Pevor	22,650	0 0	22,275	0 0	87,000	0 0			
Totals	430,790	10 8	2,017,673	5 0	1,121,495	0 0			

* No quotation in Journal.

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Messrs. ABBOTT and WICKETT, stock and share brokers, Redruth (Jan. 13), write:—We have had a quiet market this week, and transactions have not been numerous. Pedn-an-drea shares have been in demand at an advanced price, in consequence of a good report presented at the meeting on Wednesday. Subjoined are the closing prices:—Blue Hills, 3½ to 4; Carn Brea, 11s to 11½; Cook's Kitchen, 11½ to 11¾; Dolcoath, 56½ to 57; East Pool, 33½ to 34; Mellanear, 4½ to 5; North Bury, 2½ to 2¾; Pedn-an-drea, 2½ to 2¾; Pendarves United, 9 to 10; Santa Gertrude, 17s to 18s; South Condurrow, 10½ to 11; South Crofty, 10 to 11; South Frances, 11½ to 12; Tincroft, 20½ to 21; West Basset, 14 to 14½; West Pevor, 16 to 16½; West Frances, 11 to 11½; West Tolgus, 50 to 52; West Seton, 16 to 18; Wheal Agor, 5½ to 6; Wheal Basset, 5 to 5½; Wheal Grenville, 10½ to 11; Wheal Kitty, 4 to 4½; Wheal Pevor, 27 to 27½; Wheal Prussia, 1½ to 2; Wheal Uny, 4½ to 4¾.

—Mr. S. J. DAVEY, mine shareholder, Redruth (Jan. 13), writes:—Our market has been very quiet during the week, and prices of several mines have further declined. Carn Brea shares have fallen 5s., Cook's Kitchen 1s., Dolcoath 1s., East Pool 1s., and Tincroft 1s. At West Basset meeting, on Tuesday, a 5s. dividend was declared. The following are to-day's prices:—Blue Hills, 3½ to 4; Carn Brea, 11s to 11½; Cook's Kitchen, 11½ to 11¾; Dolcoath, 56½ to 57; East Pool, 33½ to 34; Mellanear, 4½ to 5; North Bury, 2½ to 2¾; Pedn-an-drea, 2½ to 2¾; Pendarves United, 9 to 10; Santa Gertrude, 17s to 18s; South Condurrow, 10½ to 11; South Crofty, 10 to 11; South Frances, 11½ to 12; Tincroft, 20½ to 21; West Basset, 14 to 14½; West Pevor, 16 to 16½; West Frances, 11 to 11½; West Tolgus, 50 to 52; West Seton, 16 to 18; Wheal Agor, 5½ to 6; Wheal Basset, 5 to 5½; Wheal Grenville, 10½ to 11; Wheal Kitty, 4 to 4½; Wheal Pevor, 27 to 27½; Wheal Prussia, 1½ to 2; Wheal Uny, 4½ to 4¾.

—Mr. J. H. REYNOLDS, stock and share broker, Redruth (Jan. 13), writes:—During the week the share market has been somewhat inactive, with business confined chiefly to Carn Brea, Dolcoath, and East Pool shares. On Tuesday last a dividend of 5s. per share was declared at West Basset, and yesterday a call of 5s. per share was made at Pedn-an-drea meeting. Subjoined are the closing prices:—Blue Hills, 3½ to 4; Carn Brea, 11s to 11½; Cook's Kitchen, 11½ to 11¾; Dolcoath, 56½ to 57; East Pool, 33½ to 34; Mellanear, 4½ to 5; North Bury, 2½ to 2¾; Pedn-an-drea, 2½ to 2¾; Pendarves United, 9 to 10; Santa Gertrude, 17s to 18s; South Condurrow, 10½ to 11; South Crofty, 10 to 11; South Frances, 11½ to 12; Tincroft, 20½ to 21; West Basset, 14 to 14½; West Pevor, 16 to 16½; West Frances, 11 to 11½; West Tolgus, 50 to 52; West Seton, 16 to 18; Wheal Agor, 5½ to 6; Wheal Basset, 5 to 5½; Wheal Grenville, 10½ to 11; Wheal Kitty, 4 to 4½; Wheal Pevor, 27 to 27½; Wheal Prussia, 1½ to 2; Wheal Uny, 4½ to 4¾.

—Mr. JOHN CARTER, mine shareholder, Camborne (Jan. 13), writes:—The share market has been very quiet during the week, sellers chiefly predominating, and prices have declined—Dolcoath shares to 56½, Carn Brea to 11s, Tincroft to 20½, East Pool to 33½, South Frances to 11½, Cook's Kitchen to 11½, and West Basset to 14½. New Cook's Kitchen shares, at 6½, the lode in the bottom level continues to improve. Pedn-an-drea have improved to 47s. 6d. buyers, call. Closing quotations herewith:—Blue Hills, 3½ to 4; Carn Brea, 11s to 11½; Cook's Kitchen, 11½ to 11¾; Dolcoath, 56½ to 57; East Pool, 33½ to 34; Mellanear, 4½ to 5; North Bury, 2½ to 2¾; Pedn-an-drea, 2½ to 2¾; Pendarves United, 9 to 10; Santa Gertrude, 17s to 18s; South Condurrow, 10½ to 11; South Crofty, 10 to 11; South Frances, 11½ to 12; Tincroft, 20½ to 21; West Basset, 14 to 14½; West Pevor, 16 to 16½; West Frances, 11 to 11½; West Tolgus, 50 to 52; West Seton, 16 to 18; Wheal Agor, 5½ to 6; Wheal Basset, 5 to 5½; Wheal Grenville, 10½ to 11; Wheal Kitty, 4 to 4½; Wheal Pevor, 27 to 27½; Wheal Prussia, 1½ to 2; Wheal Uny, 4½ to 4¾.

—Mr. M. W. BAWDEN, Liskeard (Jan. 13), writes:—The mining market has been quiet during the week, and most shares are obtainable at earlier rates for to-morrow's settlement. Bedford United shares have advanced to 2½, buyers. Subjoined are closing quotations:—Bedford United, 2 to 2½; Carn Brea, 11s to 11½; Gurnislake (Clitters), 2½ to 3; Cook's Kitchen, 11½ to 11¾; Dolcoath, 56½ to 57; Drake Valley, 1½ to 1¾; Devon Consols, 16 to 16½; Devon United, 1½ to 2; East Caradon, 1½ to 2 (call paid); East Crebor, 3½ to 4; East Herodsfoot, 5½ to 6; East Pool, 33½ to 34; Gawton United, 1½ to 1¾; Glasgow Caradon, 1½ to 1¾; Herodsfoot, 5½ to 6; Hingston Down, 1½ to 1¾; Marke Valley, 1½ to 2 (call paid); New West Caradon, 1½ to 1¾; North Herodsfoot, 5½ to 6; Old Gurnislake, 5½ to 6; Phoenix United, 2½ to 3; Prince of Wales, 1 to 1½; South Caradon, 5½ to 6; South Condurrow, 10½ to 11 (ex div.); South Crofty, 10 to 11; South Frances, 11½ to 12; Tamar Silver-Lead, 1½ to 1¾; Tincroft, 20½ to 21; West Basset, 14 to 14½ (ex div.); West Caradon, 1½ to 2; West Chiverton, 1 to 1½; West Frances, 11 to 11½ (call paid); West Crebor, 3½ to 4; West Mary Ann, 1 to 1½; West Phoenix, 1½ to 1¾; Wheal Agor, 5½ to 6; Wheal Crebor, 4½ to 5; Wheal Fortunes, 1½ to 1¾; Wheal Grenville, 10½ to 11; Wheal Hony and Trelawny, 2½ to 2¾; Wheal Kitty, 4½ to 4¾; Wheal Jane, 3½ to 4; Wheal Pevor, 26 to 26½; Wheal Uny, 4½ to 4¾.

MANCHESTER.—Messrs. JOSEPH R. and W. P. BAINES, sharebrokers, Queen's Chambers, Market-street (Jan. 13), write:—Business to a moderate amount is reported for the past week, and, excepting in rails in the market, for which several depreciations have occurred,

prices continue strong, and in sellers' favour. As we noticed some time ago, speculation seemed to be propped up by the excess of money seeking employment and its consequent cheapness. Now, however, that there appears some prospect of capital being profitably employed in commercial and industrial undertakings, money seems to be tightening and opportunities in that degree curtailed. As has been pointed out in many quarters, prices of most stocks had reached a point beyond which it was very unlikely the public would care to follow them, and with a falling off of public demands operators evidently have to seek realisations in face of dearer money.

Banks, though not so generally changed for the better as during last week, still show strong, the only advance changes being declines of ¼ in Bank of Bolton, B. shares and ½ in Southport Bank, whilst National Provident Ordinary and New shares are ¼ each, Manchester and County ¼, and Consolidated ¼ higher. The business done has also been smaller in amount than that transacted during the past few weeks.

INSURANCE, though producing very little business, show a very large number of changes for the better, indeed we do not remember having had to notice such small round advances before. Some few alterations are worthy of note:—Maritime, ½; Imperial Marine, ½; Ocean Marine, ½; Underwriters' Association, ¾; Thames and Mersey Marine, ¾; Royal Liverpool, ¾; Liverpool, London, and Globe, ¾; Boiler Insurance and Steam-Power, ¾; and several others ¼ or ½ better, whilst the only advance markings are in London and Staffordshire Fire, which are ¼; and Sea Insurance, ¼ lower.

COAL, IRON, &c., AND MINING.—With the exception of a few transactions in Bolewicks, and a large business in Ebbw Vale, the business done in this class is very small, but figures generally continue about the same, although there are a few exceptions on both sides. Some coal shares have receded sharply, possibly in consequence of the action of large masses of miners with regard to the Employers' Liability Act, which is causing some disturbance in this neighbourhood, but alterations, taken all round, are irregular. The following are higher:—Bilbao Iron Ore, 2½; Consett Iron, 2½; Ebbw Vale, 2; Nant-y-Glo and Blaenau pref., 1½; Cammells, 7½; West Cumberland, ¾; Park Gate, ¾; and Palmer's Shipbuilding, ¾. Lower:—Sheepbridge Coal and Iron, 3½; United States Rolling Stock, ¾; Telegraph Construction and Maintenance, ¾; Great Laxey Lead, ¾; John Browns, 1¼; Pelsalls, ¾; and some few others ½ each.

COTTON SPINNING AND MANUFACTURING.—This market continues pretty firm, although in some cases sellers are to be found who are willing to take rather easier prices than the best marked, still there is not a very general desire to sell at much below fullest rates marked, and a steady all-round demand is kept up, the belief being held that the present slight lull will shortly give place to a fresh upward movement, unless trade advances begin to mar present prospects. TELEGRAPHIC has taken a turn, and all are better where movement has taken place at all, save Globe Telegraph and Trust, which are ½ down. Anglo ordinary are 1½; ditto, deferred, 1½; and ditto, preference, ½ Western and Brazilian and Eastern ½ each higher, and better tone existing. CANALS show little business done, and only fractional change in quotation in the case of Bridge-ward Navigation. MISCELLANEOUS produce rather more changes than of late. Foremost amongst the instances of advanced figures is Blackpool Pier, which marks a rise of 15 per cent. London and Manchester Plate Glass and Union Plate Glass are both ½ higher. Manchester Carriage and Tramways A and Cissus, too, are quoted better, as is also Manchester Corporation Stock. Rylands and Sons, though the quotation remains unaltered, are sought for and prices better than quotations would be given if shares were offered. RAILWAYS.—The alterations in prices this week are variable. Caledonians quote a reduction of 1½; Great Northern, A, 3; Great Western, ½; Chatham (pref.), ¾; London, 1; Sheffield, 1½; Sheffield, A, 1½; Midland, 1½; North-Eastern, ¾; and North Staffordshire, 1½. With the only stock and higher is G. & E. Eastern, which show a rise of 1. Thoughts of dearer money have frightened many holders for the rise, and rates for continuation being most excessive have contributed to the general weakness. The Brighton dividend as recommended at 8½ per cent., or ¾ per cent. lower than this time last year, causing the A stock to decline, although they receive 1 per cent. more on the whole year. South-Eastern recommends 8½ per cent., which is 6 per cent. to the A stock, and this stock was strengthened therewith. Americans continue the leading feature, Philadelphia and Reading and Erie show advance of 2½ each, Pennsylvania, fractional, and Oregon 2 each; whilst Central Pacific, 1 per cent. dividend are 3 up. Atlantic is just steady. Some few stocks showed good on the announcement of Bank rate being altered to 3½, but they fell away again, and at the finish to-day stocks were freely offered.

HULL.—Mr. W. FOWLER SUTTON, stock and share broker, St. Mary's Chambers (Jan. 13), writes:—The railway markets were very flat early this week on account of the settlement and the heavy rates paid for continuing speculative transactions have damped the ardour of speculators to a considerable extent. Possibly the conclusion of the accounts to-morrow will see some revival, but as money is gradually getting dearer the inflation of the past month cannot be expected to last. The Metropolitan and South-Eastern dividends are regarded satisfactorily, but the Brighton is hardly so good as might have been expected. Nevertheless the deferred stock, with 7½ of dividends due in a few days at 145, looks decidedly cheap, standing, as it does, at a price which will pay investors slightly over 5 per cent., but it is exceedingly difficult to get buyers at a stock which is subject to such severe and unaccountable fluctuations as this particular one, and it is therefore only too probable that for a long time to come it will continue to be the football of speculators, and looked askance at by the investing part of the community. The great bulk of business transacted has been in foreign stocks, and more particularly Mexicans, respecting which all sorts of rumours have been current. It will be well if no fingers are burnt before there is any settlement made by the governments in question. Peruvian stocks have been buoyant on the probable capture of their capital by the Chilians. This appears strange, but there is sound reasoning behind it. 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companies' shares are—Langdales, 57s. 6d. to 60s.; Lawes, 5½ to 5½; and Newcastle, 55s. to 60s.

NEW PRINCE OF WALES SLATE QUARRY.—This property is situated 11 miles from the Port of Cardigan, with which it has direct communication by rail or sea to all parts. Of three slate veins which traverse the property only one has yet been worked, from which it is estimated at the end of the first year 250 tons of slate per month can be put out. The other veins are of great importance, and there seems no doubt well-conducted operations will result in great profit. The shares are 5s. each, 3d. paid.

LANGNESS COPPER MINE.—This young Manx Mine is opening out most satisfactorily, and will yet perhaps eclipse Great Laxey. They are daily expecting to cut a bunch of ore at the 40 ft. level, as they are carrying all the way a splendid rib of rich open spar, which is on the hanging side, all interspersed with copper, which in turn rides a green metalliferous stone about 18 in. thick, all sprinkled through with mundle. It is said such conditions have never failed to lead to great discoveries in the Cornish mines.

On Contango Day (Tuesday, January 11) the following were the rates of continuation then current:—Contango—1½d., 2d., 3d. on Canadian Copper; 3d., 4d., 5d. on Clyde Coal; 3d. on Caradon; 2d. on Caradon New; 4d. on Glasgow Port Washington; 4d., 3d., 2d. on Huntingdon; 4½d., 6d., 9d., 6d. on Marbella; 4½d. on Morland; 9d. on pref.; 4d. on Omoa; 7½d., 1s. on Panulillo; 4d. on Parry's Copper; 1s. 6d. on Rio Tinto; 5d. on South Indians; 7½d. on Steel Company; 7½d. on New; 2s. 3d., 2s. 9d., 3s. 6d. on Tharsis; 1s. on Broxburn; 9d. on Omoa; 4d. on West Kitty; 1s. on Wheel Granville; 9d. on Wheat Crebor; 9d. on Young's Paraffin; 1s. 3d. on India Rubber. Backwardations—Even, 9d., 1d. on Benhar Coal. On comparing the making-up prices fixed to-day for the following shares with those current at last settlement for the same shares, the variations shown to have taken place during the account are as follows:—Tharsis have advanced 30s. per share; Tharsis, new, 22s. 6d.; Marbella Iron, 10s. 6d.; Monkland preference and Richmond, each 10s.; Glasgow Port Washington, 8s.; Steel Company of Scotland, and ditto new, each, 7s. 6d.; Huntingdon Copper, 5s.; Glasgow Caradon, new, 2s.; Glasgow Caradon, 1s.; Broxburn Oil, 2s. 6d.; Glasgow Caradon, new, 2s.; Glasgow Caradon, 1s.; Wheat Crebor, 9d. On the other hand, Young's Paraffin are reduced 5s. per share; Clyde Coal, 2s. 6d.; Oakbank Oil, 2s.; Omoa and Cleland, 1s. 6d.; and India Rubber, 1s. 3d. The remainder are unaltered.—Panulillo, Rio Tinto, and Uphall Oil.

EDINBURGH.—Messrs. THOMAS MILLER and SONS, stock and share brokers, Princes-street (Jan. 13) write:—Scotch railway stocks have not received more than the usual share of attention since Thursday last. The changes of most importance are a fall of ½ in Caledonian, and a fall of 1½ Great North of Scotland. North British is ½ higher. The demand for Preference and Debenture stocks has continued. The shares of local investment companies show no improvement, this class of security having been somewhat damaged by the winding-up of two companies last year. The shares are subject to considerable liability, and some of the shareholders prefer to be rid of the possibility of calls, even at a considerable sacrifice. To-day there has been a disposition to sell the shares of one or two of those companies. The shares of the Colonial and American investment companies have been in demand during the week. American Mortgage of Scotland have risen from 23s. to 24s.; Australasian Mortgage and Agency, from 55s. 6d. to 55s.; Dundee Mortgage, from 72s. to 72s. 6d.; National Mortgage of New Zealand, from 30s. to 32s.; Scottish American Mortgage, from 62s. 6d. to 64s.; Scottish American Investment, from 87s. to 88s. In mining shares, Clyde Coal have ranged from 86s. to 89s. 6d.; Glasgow Port Washington, from 57s. to 58s.; Monkland, from 56s. 6d. to 57s.; Omoa, from 38s. to 37s. Glasgow Caradon have receded from 26s. to 25s. In banks, British Linen has declined from 270 to 268; Union, from 215 to 213½. Commercial has risen from 251 to 256½; National, from 287 to 272; Royal, from 205 to 208. In insurance shares, North British and Mercantile have risen from 64½ to 64½, and Scottish Union, A, from 75s. to 77s. 8d.

IRISH MINING AND MISCELLANEOUS COMPANIES' SHARE MARKET.

DUBLIN, JAN. 13.—The market for mine shares has been almost entirely neglected, following the movement in the general market. The report of the directors of the Mining Company of Ireland for the half-year ended Nov. 30 has been issued, and is, on the whole, favourable. The mines really appear only to require judicious and energetic working to make them a great success, and this would give a start to Irish mining generally.

CORK.—Messrs. J. H. CARROLL and SONS, stock and sharebrokers, South Mall (Jan. 12), write:—Markets remain dull and inactive. Great Southern were done at 115 to-day, and Midlands at 90½. Bandons asked for at 91½, and Passages at 10½. Macroom Preference, 7. National Banks are 67, and Provincials 57 to 57½. Munsters strong at 7½. Cork Steam Packets remain 13½ to 15½. Lyons shares 5 to 5½, and Dalys 3 to 3½. Gas shares offered at 7½, and Harbour Board Debentures in good demand at 102½ per cent.

MINING COMPANY OF IRELAND.—(From our Dublin Correspondent).—The report of the directors for the half-year ended Nov. 30 states that the result of the operations at the several establishments was a profit of 2137. 4s. 8d., after expending 837. 12s. 5d. on permanent works at Lurganure Mines. At Slievadagh Collieries, county Tipperary, the six months' output of coal and culm was 12,868 tons, and the sales were 14,308 tons. The profit was 6317. 1s. 7d. The siding, with loading bank at Zaffan's Bridge Station on the Southern Railway, long since promised, has not as yet been provided, and consequently the greater portion of the coal and culm has still to be carted 13 miles to Thurles, but the directors have hope that this matter will be speedily remedied. At Dohall Collieries, county Cork, there have been no raisings or sales. The expenditure was 427. Lurganure Mines, county Wicklow, the raisings of lead ore were 406 tons, as compared with 473 tons in the previous half-year. The deliveries of ore to the Ballycorus Smelting Works were 424 tons, of the value of 29187. The loss was 13937. 3s. 4d., which includes 837. 12s. 5d. expended on permanent works. The conveyance to this company of the royalties of the Manors of Glendalough and Slangan has been executed by the Irish Church Temporalities Commissioners. The sheet rolling mill at Ballycorus Works, county Dublin, having been erected many years ago, was found to require reconstruction, especially with a view to introducing several modern improvements, tending to economise labour and increasing the capabilities of production. This has been done during the past summer with some loss of time, and at a cost of 15487. 16s. 5d., which has been placed to "capital account." Yet the profits of the establishment was 25667. 17s. 10d. At Knockmahon Mines, county Waterford, the expenditure during the half year was 1474. 7s. 5d.

STEEL.—Mr G. E. Muller, Middlesborough (Jan. 11), writes:—The quantity of steel made in 1880 amounts to 144,000 tons, mostly rails. The phosphorisation process is progressing satisfactorily in every respect: it produces a purer product for Cleveland. The prospects of the steel trade are very good everywhere. In this country the works are full of orders for the best part of the year. The same state exists in Germany and America. In France the steel works have the bulk of their output engaged till the end of 1882. Steel rails, which in December were booked at 6½, are now 6½ to 10s.

IRON.—Messrs. FANSON, ARMSTRONG, and Co., Middlesborough, (Jan. 11) write:—In Cleveland pig-iron the fluctuations have been marked. On 5, on January 1, standing at 52s. 6d., advancing to 65s. about the middle of February, and on the collapse of the American demand, a great portion of which was purely speculative, declining gradually to 36s. early in June (the lowest point reached), and again recovering by the end of the year to 40s. 6d., with a fairly steady and general demand. Manufactured iron has been in good request throughout the year, and the plate-mills especially have been well employed. But angles and beams have at times been slow of sale, and specifications difficult to obtain, but on the whole, both as regards the average price realised and the amount of work turned out, the year has been fairly satisfactory. We commence the new year with a steady feeling on all sides, and so far as we can gather with a general conviction that although we may have labour difficulties, a fairly remunerative range of rates will be maintained, though we may not see any great advance in prices. Such a state of things would, we venture to think, be more to the advantage of the trade and all connected with it than a recurrence of previous periods of undue inflation.

—Messrs. VIVIAN, YOUNGER, and BOND, (Jan. 7) write:—Towards the close of the year there was decidedly more tone in the metal market. So much having been recently said about the enormous production of iron in all its branches, the publication of the figures disclosed features unexpectedly favourable and encouraging. It would seem, in fact, as if consumption would for the present hold its own against the output. The new year opens with much brighter prospects than for many years past, and in the absence of disturbing outside influences, monetary or political, it seems probable and reasonable that good times will prevail in all branches of the metal trade.

COPPER AND TIN.—Messrs. RICKARDS and BUDD (Jan. 10) write:—The course of the market during the past year has been materially interfered with by the extreme speculation which characterised its earlier months. The eager buying which then prevailed forced prices up to 74½ per ton for Chili bars. This inflation did not, however, last long, and the reaction which afterwards set in brought the market down to a very low point—say, 55½ per ton. The holders of the great mass of the bars seemed more willing to buy than to sell at these rates, and the consequence was a rally to 60½, 61½, at about which figure we have remained ever since. We open the year with a good demand for copper, with a reduction in public stocks of about 5000 tons from the highest point, and with a fair prospect of prices remaining steady, unless large shipments from Chili should be resumed. Tin remains very steady at present high prices. Consumption is large, and production does not seem yet to have overtaken the demand. The delivery of foreign ore of warehouse, London and Holland between Jan. 1 and Dec. 31 was 20,750 tons against 21,250 tons in 1879, and 18,560 tons in 1878. The stock of tin in public stores here and in Holland, omitting Banca in Dutch Trading Company's hands, is 9370 tons, against 11,450 tons in 1879. The shipments of Straits to England during the year was 2905 tons against 3280 tons in the preceding year; and of Australian 7798 tons against 7606 tons in the preceding year. The exports, English and foreign, were 13,131 tons (4396 English and 8735 foreign), against 15,063 tons (5224 English and 9839 foreign) in the preceding year.

EVERYBODY COUGHS, except those who take **DR. LOCOCK'S PULMONIC WAFERS**, which stop a cough at once, relieve the breathing, loosen the phlegm, and produce ease and comfort truly astonishing. Dr. Locock's Wafers instantly relieve and rapidly cure Asthma, Consumption, Bronchitis, Colds, Hoarseness of Breath, Pains in the Chest, Rheumatism—and taste pleasantly. Sold at 1s. 1½d. and 2s. 3d. per box.

Meetings of Public Companies.

WYNAAD PERSEVERANCE ESTATE AND GOLD MINING COMPANY.

The first statutory general meeting of this company was held on Monday at the New Exchange Buildings, George-yard, Lombard-street, Mr. ARTHUR HALL in the chair.

Mr. W. H. THOMPSON (the secretary) read the notice convening the meeting.

The CHAIRMAN said that this being a statutory meeting there was no printed report to submit to the shareholders, and no resolution to be proposed except at the extraordinary meeting, therefore, he would just make a short statement, and then leave it to any gentleman who liked to put any questions to elicit any further information which he might desire, and he would be happy to answer as far as he could. They had completed the purchase of the Perseverance estate on the 10th of last month. It would be remembered that they had to pay for the same 50,000l. partly in shares and partly in money, and out of the shares that were offered to the public—that was to say, 53,334—there were applications for 62,839, or about 9000 in excess of the number to be allotted. However, the allotment took place in due course, and the purchase was completed, as he had said, on Dec. 10. The deeds assignment of the sale had been sent to Madras for registration, and to be recorded in the palace of the Rajah who was the owner of the estate; there had not been time for them to come back, but they heard by telegraph that they had been received, and when registered they would be returned here in due course. He thought they had every reason to be satisfied with the purchase that had been made of the Perseverance estate, and he might say that they bought the estate nominally comprising 600 acres, but subsequently it was found to be a good deal larger, and as soon as the Government survey was completed, which were now in progress, they expected to find that they had got a very considerably larger area of land than was at first anticipated. The estate had been visited by Mr. Brough Smyth and Mr. Oliver Pegler, both of whom thought very favourably of it, and had reported in extremely high terms. Their report was alluded to in the prospectus, and, therefore, he did not know that there would be any advantage in reading it. He would mention that on the estates there were very large native workings, and when the gentlemen were prospecting the reefs they came upon a passage, the roof of which was supported by a pillar, showing indications of gold; therefore, they thought it would be just as well to knock it down and put up a timber one instead. They carried it away and assayed it, and the assay gave a very good proportion indeed of gold and silver. In the pyrites there were 155 dwts. of gold and 52 dwts. of silver, and in the quartz 18 dwts. of gold and 6 dwts. of silver to the ton; that was left by the old native workers who had been there many years ago, so that if they passed over that they must have found something very much better to attract their attention if they left such a valuable piece of mineral as that. A reference to the map would show that their property was close adjoining the Alpha Company, and close to the Hamsdale and Hamsluck, all of which had been worked by the Devala-Central. The Alpha estate was where the finest reef originally was found—the skull reef which was worked and had been worked up to the present time. The best that had been found all over the Wynaad, it was close to that, as the maps showed, that their reefs ran all in one direction, and passed for the Perseverance through Hamsluck up to the South East Wynaad estates. That was also very much in favour of the Perseverance as an estate, the native workings having opened the surface and given them tunnels. It rendered any further prospecting unnecessary, and would enable their men to get to work at once. It was proposed to work the estate under the superintendence and direction of the chief engineer of the South East Wynaad, Mr. Cooper, who went out in November, has just arrived at Madras, so that in a very short time they would hear from Mr. Cooper who had instructions to proceed to the Perseverance and examine it carefully, and make a report as soon as he could. In the meantime the directors had ordered some crushing machinery to be manufactured for the estate, and that would be sent to India during this month. They had all the necessary implements to assist in the mining operations, and Messrs. Stane, Watson & Co., who knew the property well and were interested in it, had been directed to lose no time in putting up the necessary buildings for the workmen, and the engineer, and in forwarding the machinery. The timber on the estate was represented by Mr. Brough Smyth and Mr. Oliver Pegler to be very fine and abundant, and there were also two or three streams, so that there would be no want of water. The timber was represented to be so much more abundant than they would ever require for themselves that they could sell it to others who were not so well off. The title which had been approved by the solicitors, and had gone out for registration, and it was in the opinion of the directors a perfectly satisfactory and good title. It was a lease from the original owner for the mining and surface rights extending over a long period. They had one small engine up safely, and another company had had some stamp heads up, so that the matter was not impracticable, and—in fact, he thought that no doubt the difficulty could be overcome. Indeed, they had applied to the Government to assist them by improving the bridges, and the attention of the Government of Madras had been directed to the advisability of constructing a new line of railway. He thought that gold mining in the Wynaad was not at all in a bad way, and everything indicated that before long they would hear of very good results.

Mr. WATT asked the Chairman if he could give the actual area of the estate?—The CHAIRMAN replied the estate was taken unsurveyed by the Government, but a report had come over that it might possibly come up to as much as 2000 acres.

Mr. J. G. BOILEAU was then appointed auditor of the company.

The meeting was then made extraordinary to consider the following resolution:

The CHAIRMAN moved a resolution rescinding the following clause in the Articles of Association:—"In no case shall the directors be bound to enquire into the validity, authority, legal effect, or genuineness of any deed of transfer produced by a person claiming as transferee of any share, in accordance with these articles; and whether they abstain from so enquiring, or do so enquire and are misled, the transferee shall have no claim whatever upon the company in respect of the share, except for the dividends previously declared in respect thereof, but only, if at all, upon the transfer." He explained that the object was to comply with the rules of the Stock Exchange, and said that he had no doubt that now they would obtain a settlement and quotation of the shares, and there was no reason why they should not go to a premium.

Mr. SANGSTER seconded the resolution, and said he was surprised that the clause was ever inserted in the articles.—The resolution was put and carried unanimously.

A vote of thanks to the Chairman and directors terminated the proceedings.

COLORADO UNITED MINING COMPANY.

A special general meeting of shareholders was held at the New Exchange Buildings, George-yard, Lombard-street, on Wednesday, Mr. COOPE DAVIS in the chair.

In response to the following notice—"Mr. W. Fraser Rae having returned to England after visiting the company's property in Colorado, the directors in accordance with the undertaking given at the last general meeting, invite the attendance of shareholders at a special meeting to be held for the purpose of receiving his report."

The CHAIRMAN said that when he last had the pleasure of meeting the shareholders on July 7 last he expressed a hope that the late chairman, Sir Cecil Beadon, would soon recover from what was then supposed to be a temporary illness, but he had succumbed to it, and died within ten days of the day of that meeting. The loss of Sir Cecil Beadon was a great one, indeed, to his co-directors, and also to the shareholders, for he was a clear-headed, straightforward man of business, with great faith in this mine, and it was a matter of great regret to his colleagues that Sir Cecil did not live a little longer to see what he hoped was a resuscitation of the affairs of the company after so many years of depression. The board had elected General Feilding to fill the vacancy on the board caused by the death of Sir Cecil Beadon. Shortly after the last meeting a circular was sent to the shareholders containing a notice from Mr. Hamill, the manager of the mine, giving an account of the different losses to the company's property. In compliance with Mr. Hamill's wish the board had sent out a competent book-keeper and clerk, Mr. Pearson, a gentleman in whom they had every confidence. He was sure he spoke the sentiments of all present in saying that they all heartily welcomed back Mr. Rae to this country. Mr. Rae had a most difficult business to carry out, and he believed it had been carried out most successfully.

Mr. W. FRASER RAE said he visited the mine in November. He found that Mr. Pearson, who went out in August, had been on the mine six weeks. Mr. Pearson had previously been there, and, therefore, was well acquainted with the property, and was pleased to find that Mr. Pearson had devoted himself with zeal to the duties he had undertaken to fulfil, and it would be difficult to find anyone who promised to put his heart and soul more into the business. Owing to a somewhat serious accident which had happened to Mr. Pearson the accounts had not arrived in this country, but when he was at the mine he saw them brought up to the month of November, and were then only awaiting the final revision of Mr. Hamill to be forwarded to this country. He might mention that the accounts would show the company had a balance at the bankers. When it was suggested that he should visit the property he did not undertake to make a technical mine's report. He had full confidence in Mr. Hamill's skill and judgment, and all he undertook to do was to see everything, and ascertain all that he could, and bring back his general impression regarding the state of affairs. His visit to the mines extended over a fortnight, and he was on the mines for 10 or 12 hours each day. He went over and through the greater portion of them, and saw all those engaged in managing the property, and he conversed with Mr. Robins, the foreman of the mine, and Mr. Cherkeek, the manager of the mill. Mr. Robins, who was a native of Devonshire, knew the mine thoroughly, and it would be difficult to find any man more trustworthy, or more desirous of making the mines do their duty. He was persuaded with the idea—an idea which existed generally in the district—that the mines should pay. First, because they were the best mines in the district; and secondly, it was felt that the shareholders had not quite had fair play. The manager of the mill, Mr. Cherkeek, had been offered double what this company were paying him to go elsewhere, but he preferred remaining with the company. The general conclusions at which he (Mr. Rae) had arrived he had embodied in writing, which he would read. He might mention that what he was about to read had been read and approved by Mr. Hamill. (He then read the report.) Referring to one of the sentences in the above document he said it really meant that Mr. Hamill had presented £8000 to the company. Mr. Hamill had not only read this document over, but has appended his name to it, to show that he fully concurred in all that had been written. Mr. Hamill was one of the few men connected with mining who did not indulge in exaggeration. He was imbued with a determination, which probably had somewhat influenced him in writing his report, not to lend himself to speculation in the shares. In 1878 the

shares exceeded par, and at that time Mr. Hamill said there was nothing to justify so high a price, and that when he entered on the total charge of the mine no such thing should happen. That determination had been carried out with strictness, and no one was allowed to enter the mine unless with Mr. Hamill's consent, or the consent of the Chairman in writing. No one was more interested than Mr. Hamill in making the mine a success, as he had an amount of money in it which represented at par 100,000l. He had already stated that the £30,000 of Mr. Hamill's debt was cancelled, but that did not represent the debt which existed on the property when Mr. Hamill took charge, which was \$50,000. Mr. Hamill had worked the property, and had cleared off the \$50,000 of debt, and he had also erected works which might very fairly have been charged to capital. If, when he commenced, Mr. Hamill had had \$50,000 in hand instead of being \$50,000 in debt he said should unduly excite the expectations of the shareholders, but he had had on the spot evidence of the value of the mine which had startled and staggered him. He had brought home with him a small piece of ore from one of the levels driving west which had assayed 2000 ozs. of silver per ton, and another piece taken from the U.S. Coin lode had yielded 20,000 ozs. of silver to the ton. Mr. Hamill believed this company possessed the cream of the property on the mountain. The youngest shareholder would not live to see the end of this property. If Mr. Hamill could employ diamond drills he believed that shareholders would soon be in receipt of dividends which would fully satisfy them, and convince them that the conclusions he had arrived at had not been at all exaggerated.

A SHAREHOLDER asked how many side lodes there were?—Mr. RAE: Nineteen.

Mr. BLAYDON said he was fully justified in moving the resolution which he did at the last meeting, suggesting that some one should be sent out to inspect the mine, and report thereon to the shareholders. He was very much satisfied with what had fallen from Mr. Rae, which had given him much greater confidence than he had before in the property. He moved that the hearty thanks of the meeting be given to Mr. W. Fraser Rae for his very satisfactory report upon the company's property, for the trouble he had taken, and for his success in carrying out the views of the shareholders, and that the sum of 50l. be voted to him as a slight acknowledgment for his trouble.

Mr. PEARCE, in seconding the resolution, expressed his great satisfaction at the satisfactory aspect which the affairs of the company had assumed, and said he had had now considerable confidence in the future of the company.

Mr. ALT mentioned that the expense to the company of the visit of Mr. Rae was under 100l.

Mr. RAE said that whilst extremely gratified with the motion which had been made, but he would rather not accept the donation till the company was in possession of funds, and in a better position to pay it. He might mention that when he was in Colorado he had the pleasure of remitting to this country the sum of \$1500, which would be the first remittance which had been received for seven years. He had also been successful in settling a little matter of litigation which had arisen between the company and one of the late managers of the company.

The resolution was then put to the meeting and carried.

On the motion of General FEILDING, seconded by Mr. ALT, a cordial vote of thanks was passed to Mr. Hamill.

A vote of thanks to the Chairman and directors closed the proceedings.

WEST LISBURN MINE COMPANY.

The statutory meeting of shareholders was held at the offices of the company, Great Winchester-street, on Monday,

Mr. C. C. MARVIN in the chair.

The notice calling the meeting was read by Mr. WILLIAM BATTYE, the secretary.

The CHAIRMAN said this was a statutory meeting, held in compliance with the Act of Parliament, which required a meeting of the shareholders to be held within four months of the registration of a company. The work done since the company started had been as follows:—The adit level had been cleared and secured for a considerable distance, the mine had been forked to the depth of the level, the buildings had been repaired, the quarry cleared, and the stone quarried for the engine-house. The company possessed an excellent quarry, and there was no need to purchase stone for building. The foundation of the engine-house had been laid out, an engine of over 20-horse power had been purchased, together with a boiler, crushing and drawing mill. The boiler was one of 10 tons, 30 ft. in length. The engine, as he had said, was of over 20-horse power, and was considered as good as new. He had always been extremely careful in his estimate of the quantity of ore, and he thought it might fairly be put at considerably more than that. Having given some figures with regard to the probable returns of the mine, the chairman went on to say that from the perpendicular shaft to the new shaft the ground stood whole to the surface. The lode ran from 4 ft. to 12 ft., and in some places 15 ft. wide. The opinion of all engineers was that this mine was on the same lode as the Great Lisburn Mine, which had paid two dividends in the past year. There was a quantity of ore on the surface at West Lisburn ready for crushing. There was a point which had struck him in connection with lead mining generally, and that was that lead mining had not, for some time, received the attention of capitalists which it had been wont to do. Lead at one time was one of the leading minerals, but recently there had been a run upon gold, copper, and tin. But they knew that when an essential article, such as lead for instance, was neglected a reaction must sooner or later take place, and it generally took place very rapidly. Some gentlemen pointed to the fact that a great deal of lead was sent over here from mines in America and would probably continue; but they did not take into account that the population of the United States, independent of Canada, had increased about 12 millions during the past few years, and that the total population now amounted to over 50 millions. There could, therefore, be scarcely a doubt that all the lead which America could produce would be required over there, and that America would not export the quantity of lead she formerly did. Again, a considerable quantity of lead had, in recent years, been sent over from Spain; but, owing to the badness of business, those returns had somewhat fallen off. Looking, therefore, at these circumstances, he thought they might fairly assume that they had now got to the turning point in the lead market. He maintained that in a mine like this in Cardiganshire, with 14,000 ft. already spent upon it, with the pit work done, some of the pumping rods fixed, and the engine bought at such a low figure, and under convenient circumstances, there was every chance of its future success. He had no doubt whatever that the shares would go up to a much higher figure; he considered them to be of much more value than the present price.

Mr. E. H. WILLIAMS asked whether the cost of taking down, removing, and re-erecting the engine would be large?

The CHAIRMAN said the engine had been taken down and fixed on trucks for 25l., and an arrangement had been made with the railway company to take it to the station nearest the mine for 15s. per ton. He went on to mention that the mine was situated immediately adjoining the South Wales coal field, so that there was every facility for obtaining fuel, and the directors had it in contemplation to lay in 200 tons at once. The great object of the board would be to make returns as rapidly as possible consistent with the efficient working of the mine, and to do that the board thought it better to fix the calls at 2s. 6d., payable in three months, which would enable them to put on a good force. He might mention that Capt. Bray, who had been connected with the mine for many years, had shown his confidence in the property by joining the board. No regular manager would be appointed until the surface works were all completed, but in the meantime Captain Bray, who resided in the neighbourhood, had kindly offered to superintend the operations until the same were completed. Up to the present time the cost-sheet had been extremely small. Mr. Thomas R. Bourne, of Bristol, had visited the mine, and had been so pleased that he had joined the board. The Lisburn Mines had returned over two millions sterling of ore. He could only say he had the greatest confidence in the property.

The CHAIRMAN, in reply to a SHAREHOLDER, said they had a clear lease for 21 years, for the first seven years at 1-21 royalty, and the remaining period at 1-16th royalty.

A short consultation ensued, in the course of which several gentlemen who were acquainted with the mine expressed their confidence in the future of the mine; and, a cordial vote of thanks having been passed to the Chairman, on the motion of Mr. W. B. COOPE, the meeting broke up.

INDIAN GLENROCK GOLD MINING COMPANY.

The report of the directors, prepared for presentation at the meeting on Thursday next, states that the directors have for some months past had reason to believe that it was of the greatest importance to the company to acquire, if possible, all the freehold, leasehold, and other rights of the owners of the Glenrock estates, including the royalty of 10 per cent. of the profits to be derived from the operations of the company, and which royalty was one of the conditions made by the vendors on the sale of their mineral rights to the company. They have now the satisfaction of reporting to you that their negotiations entered into with that object have been successful, and that an agreement has been made between the company (subject to your approval) and Mr. J. Ryan and Mr. L. Miller on behalf of themselves and their co-owners of the estates. The estates comprise about 420 acres in coffee cultivation; 1000 acres of forest; 1730 acres of scrub and grass. In all about 3150 acres.

Negotiations are pending for the letting of the coffee plantation, from which Mr. J. Ryan anticipates a profit of nearly 4000l. has been made during the last season. The forest contains timber of various descriptions, essential for building and other purposes, to the mining industry commenced in this district, and now being rapidly developed, and a considerable return may be expected therefrom, as many estates have little upon them better than brushwood. The remaining land contains sites suitable for the numerous dwellings necessary for the accommodation of the large body of coolies and other labour which will be required

to effectually carry out mining operations on the very large area of 3000 acres. The value of the extensive right to use the river which flows through the estate for the purposes of the company can scarcely be overestimated.

The advantages just referred to are, however, entirely subordinate to the real object the directors had in view, which was to possess the land, and thereby have the exclusive right of dealing with this auriferous property. Its increased value should to some extent, in the directors' opinion, be realised for the shareholders by the re-sale to other companies of blocks or areas for mining purposes of from 100 acres to 200 acres, and the remarkable prices at which some recent sales have been effected justify the belief that the results of such re-sales will prove highly satisfactory.

In the not improbable event of the gold industry proving as attractive in the Wynad as it did in Australia, and the scheme of the Government of India, as indicated in its report of Sept. 1, 1879, to the Secretary of State to allot mining rights of from 1 to 30 acres only be carried out, a further increase in the saleable value of reefs, which have been proved to be auriferous in depth, may be expected, and indeed the time may come when such reefs will be sold at per foot run. Already the price per acre has advanced considerably during the past year, as is evidenced by the reported sale of 50 acres to the Rhodes Reef Gold Mining Company (Limited) for 130,000*l.*, or 2600*l.* per acre; whereas if the agreement with the owners be carried out, the Glenrock estate will have cost only about 26*l.* per acre. The price agreed to be paid to Messrs. Ryan and co-owners (subject to the approval of the shareholders) is 35,000*l.*, of which the vendors stipulate for 20,000*l.* in fully paid-up shares, the balance of 15,000*l.* is to be paid in cash.

As all the shares into which the original capital of the company is divided were allotted it becomes necessary to provide the 20,000 shares before referred to by increasing the capital of the company to that extent, and the directors are, therefore, of opinion that it will be better to effect the purchase by creating 40,000 additional capital. They will, therefore, submit resolutions to the shareholders at a meeting to be shortly convened to the effect that the capital of the company be increased by 40,000*l.* in shares of 1*l.* each: that of such shares 20,000 be allotted to Messrs. Ryan and co-owners, the vendors, in part payment of the before mentioned purchase money; and that the remaining 20,000 shares be offered *pro rata* to the shareholders on the register at the date of the confirmation of such resolutions, if the same be passed. By this mode of proceeding shareholders will be entitled to one new share at par for every five shares now held: but no division of a share can be made.

Although it will not be possible so early in the year to present a detailed account of the expenditure in India, yet the directors will at such meeting submit to the shareholders a balance-sheet, a copy of which will be forwarded to each shareholder prior to the meeting, whereby the financial position of the company at Dec. 31, will be shown, as they believe the information to be conveyed by such a statement will be acceptable.

MARKE VALLEY.

At a general meeting, held on Wednesday (Mr. Wm. BELLINGHAM in the chair), the following report was received:—

Jan. 10.—We beg to present you the following report of the past quarter's workings:—Sallybury shaft has been sunk as fast as the nature of the ground will admit, and is now 10 fms. 4 ft. below the 143. The 143 has been driven further east about 3 fms., where the lode was promising in appearance, being 1 ft. wide, composed of quartz, mudstone, and spotted with copper ore. This end is suspended, and the men were put to sink a winze below the 90 in the western ground, where the lode, to commence with, yielded 2 tons of ore per fathom, but not finding it to continue at that value in depth we decided on Saturday last to put a slope over the bottom from the winze, where the lode will yield 2 tons of ore per fathom. The 90 has been driven further west into new ground about 7 fms.; the lode here is 4 to 7 ft. wide, at times containing good branches of ore, which is still the case. This is a very promising point, that may open out a course of ore any day, notwithstanding it has hitherto been so very disappointing. In the rise, which is now about 9 fms. above this level, the lode is 1 ft. wide, composed of quartz, capels, and mudstone, with a little copper ore, but not to value. The 50 west end has now been driven 23 fms. 1 ft. 6 in. In the early part of the quarter we had a lode for 4 fms. in length that yielded 1½ ton of ore per fathom, but since then it has been irregular, and much disordered by patches of clay and hard capels, consequently the progress has not been equal to our expectations. The lode in the present end being small, we have arranged to cut in south to prove if there is another part there. We have nine men employed here, and are doing our utmost to urge on this end with all possible speed.

The end east from rise in the back of the 40 has been driven 8 fms. 3 ft. through ground yielding some good quality ore, such as will be available for the tributor when properly ventilated. The 20 end has been driven about 7 fms. 3 ft., with a view of communicating to the above. This being a most desirable object to attain, has also had our strict attention, as by its accomplishment the backs now being stopped in the western part of the mine—from whence the principal part of our returns are being raised—are worked to a disadvantage for want of proper ventilation. We hope to hole here in a few days, when we purpose to continue the 20 over the ground we are stopping further west. We also consider the driving of the 40 west should be resumed, and that the cross-cut at the 20 be extended further north to prove if there is another part of the lode north of that on which we have been working, which does not correspond with that worked on at the 50. These points would have been recommended before now if we had had sufficient air to work them. We regret that the drivings of the past quarter have not been attended with better results, but we still hope and believe that as the ends are extended into the western ground other discoveries will shortly be made. We have seven slopes working by 25 men, yielding in the aggregate 20 tons of ore per fathom, and eight tribute pitches by 19 men, at 13s. 4d. in 1*l.*

—WM. GEORGE, FRANCIS RENALS.

WEST BASSET.—At the meeting, on Tuesday (Mr. J. Claude Daubuz in the chair), the accounts for the three months showed a profit of 1356*l.* 18s. 5d., raising the available balance to 1756*l.* 14s. 5d. A dividend of 1500*l.* (5s. per share) was declared, and 100*l.* per annum from the commencement of the past year voted to the committee, and 10*l.* 10s. to the dynamite patent opposition fund. The Chairman said that, comparing the three months' returns with those of the previous quarter, it would be seen that a few tons less of black tin had been sold, although it had, nevertheless, realised rather more money, owing to the higher prices which had prevailed. The expenditure had, however, been rather heavier, chiefly in connection with the eastern part of the mine, where very satisfactory progress had been made in the past three months in laying open a large amount of ground which would shortly be available for profitable working. During the past 12 months about 860 tons of tin had been sold, realising 45,000*l.*, which, with 54 tons of copper, had been produced at a cost of 24,170*l.*, leaving a balance 9000*l.* in favour of the mine. Of this 9000*l.* completed the extinction of the long standing debt, and it was proposed that day to make a second dividend of 5s. per share, or 1500*l.* It would be seen, therefore, that the average cost of production, including a large outlay expended in exploring work, had been under 40*l.* a ton, and sold at an average price of 50*l.* a ton throughout the year. Although the proposed amalgamation scheme with South France had fallen through, the committee saw no reason, however, to regret the action they took in the matter, and should any question of the kind hereafter arise, it would receive fair and impartial consideration.—Capt. Nicholas remarked that they would have shown a better statement of accounts this quarter had they not been making great efforts in prosecuting the mine eastward as well as westward. They had laid open an immense quantity of ground. The eastern ground was not only improved since they last met, but the western ground was opened up, and they had reserves in that part which would occupy years to take away. They were driving two cross-cuts westward, so that they were exploring this part as well as the eastern ground. The usual complimentary votes terminated the proceedings.

[For remainder of Meetings, see to-day's Journal.]

LADY ANN.—Reports of this property speak more favourably as the men advance in the level. Captain William Francis (Jan. 7) reports:—"All goes on well, and most satisfactorily. The dam holds as tight as a bottle. The vein looks most promising, just as when I reported last." He adds (Jan. 11): "The vein (Westminster) is still the same width, with splendid compounds."

CARDIGANSHIRE MINES.—"Traignant Bach Mine has been favourably reported upon by Mr. Seimmonds, President of the Liverpool Geological Society, and other mining engineers. The mine is described as embracing a number of ascertained prolific lead-bearing lodes, which pass through and intersect each other in the sett, forming many of those junctions which are so favourable for the formation of large deposits of ore. There has been a large amount of work done, the main shaft being sunk 40 fathoms, and an excellent water-wheel, line of rods, and pumps being now at work, and the mine being under the management of Capt. Andrew Williams, well known in connection with the South Cambrian Mine, there can be no doubt of this property being developed in an able and efficient manner, so as to ensure a full measure of success to the shareholders, and to find employment for a number of the industrious workpeople of the locality. The property is expected to be one of the most successful Cardiganshire mining adventures of 1881. Gold mining seems to have a charm for the public mind at the present time, judging by the large number of fresh ventures which have been lately introduced, but it is considered that a good home lead mine efficiently worked, where shareholders have the opportunity of seeing and judging for themselves, will not suffer in its results by comparison with any foreign venture.

KOH-I-NOOR SILVER MINING COMPANY.—This company has been incorporated, with limited liability, and a capital of 30,000*l.*, divided into 10,000 preference, or A shares, and 20,000 ordinary, or B shares, of 1*l.* each. The preference, or A shares, are entitled in each year to a preferential dividend of 15 per cent. out of the sum available for dividends in the first year; after which the ordinary, or B shares, are entitled to dividend for the year up to the same rate; further profits to be divided *pro rata* between all the shareholders alike. The preference of A over B shares until a sum equal to the full amount of the capital represented by the A shares shall have been paid in dividend, after which the preference will cease, and all shares will rank alike. The mine is situated in Clear Creek county, Colorado, or Columbian Mountain, half a mile south of Sanson station of the Colorado Central Railroad, about three miles west of Golden, and 46 miles

from Denver, in Colorado. For every two A shares held the vendor will give one bonus, or B share. The chairman of the company is John Elliott, late chairman of the Richmond Consolidated. The whole capital is paid up, and was subscribed for privately, and the shares are 15 1-16 prem.

Registration of New Companies.

The following joint stock companies have been duly registered:—

BROUGHTON AND PLAS POWER COMPANY (Limited).—Capital 200,000*l.*, in shares of 10*l.* To carry on the business of colliery proprietors, ironmasters, coke manufacturers, coal merchants, joiners, smelters, iron founders, engineers, patent fuel, brick and tile manufacturers, and any other businesses which can be carried on with the above. The subscribers (who take one share each) are—H. Robertson, Palé, M.P.; W. H. Darby, Denbigh, ironmaster; R. Peacock, Manchester, J.P.; R. Leacock, Manchester, engineer; K. Lange, Manchester, engineer; E. J. Webb, Manchester, secretary; W. W. Haswell, Chester, accountant. The following are the first directors, Messrs. Robertson, Darby, Peacock, G. Makin, and W. Dean. The qualification is fixed at shares of the value of 500*l.*

THE SULYMAH TRADING COMPANY (Limited).—Capital 30,000*l.*, in shares of 25*l.* To carry on the business of general merchants in all branches. The subscribers (who take one share each) are—J. Whyte, Liverpool; M. Herschell, Liverpool; J. M. Harris, Liverpool; J. Mackenzie, Liverpool; B. Lewis, Liverpool; J. Duncan, Liverpool; J. Griffiths, Birkenhead.

THE SCOTLAND STEAMSHIP COMPANY (Limited).—Capital 50,000*l.*, in shares of 10*l.* To acquire the steamship Scotland, and carry on a shipowner's business. The subscribers (who take one share each) are—A. Carnegie, 16, Bishopsgate-street; C. N. Syder, Lewisham; R. M. Harvey, 512, Commercial-road; H. Skinner, 118, Bishopsgate-street; M. W. Brisley, 125, Elsiey-road; D. Falconer, 22, Mincing-lane; P. L. Theolocas, 19, Lancaster-road.

THE WEST END DAIRY FARM COMPANY (Limited).—Capital 25,000*l.*, in shares of 1*l.* To carry on a dairy business in all branches. The subscribers are—W. Pemberton, Walmer, 1500; F. P. Gurney, Ealing, 1000; W. Paske, Southall, 50; W. P. Baxter, Southall, 50; W. C. N. Shore, 1, Sheffield Gardens, 50; G. R. Walker, Brockley, 1; F. Hatton, Notting Hill, 1.

KING AND COMPANY (Limited).—Capital 60,000*l.*, in shares of 10*l.* To purchase and continue at Kingston-upon-Hull an engineering and contractor's business. The subscribers (who take one share each) are—W. R. King, North Temby; J. Lacy, Hessele; J. S. Croft, Kingston-upon-Hull; G. T. Appleyard, Kingston-upon-Hull; T. Bach, Beverley; A. H. Rollit, Cottingham; G. D. Wallis, Kingston-upon-Hull.

J. ASCHER (Limited).—Capital 50,000*l.*, in shares of 2*l.* To acquire and carry on a tailor and outfitter's business. The subscribers (who take one share each) are—J. B. Ball, 1, Gresham-buildings; J. Ascher, 428, Strand; E. Smith, 105, Cheapside; E. P. Everett, 105, Cheapside; C. W. White, 30, Craven-terrace; W. C. F. Hunt, 8, Duke-street; W. W. Knollys, 102, Belgrave-road.

THE NORTH OREGON GOLD MINING COMPANY (Limited).—Capital 120,000*l.*, in shares of 1*l.* To search for gold and other minerals and precious stones in the Province of Mysore and elsewhere, and to acquire by purchase or otherwise mining rights in the district of Colar, Mysore, or any other district in India, and particularly to adopt and carry out a certain agreement made between A. Sander on the one part, and G. F. Bashford as trustee for the company. To seek, win, open, and work gold and other mines and minerals and precious stones, disposing of the ores of gold, &c., to convert such ores into metals, and otherwise deal with the same, and generally to carry on all operations connected with a gold mining company. The subscribers (who take one share each) are—F. Thompson, Wimbledon, merchant; C. J. Hodgson, 110, Cannon-street; Major-General O. H. Howarth, 45, Warwick-road, C.E.; J. M. Martin, Temple, gentleman; T. A. Hunter, Naval and Military Club; Lieut.-Col. G. F. A. M. Bashford, 7, Havick-place, gentleman; T. D. Webb, Junior United Service Club, gentleman; J. H. Servier, 1, Morpeth-terrace, gentleman. The number of directors must not exceed nine or be less than three. Qualification 100*l.* in shares.

FORMBY'S CEMENT WORKS COMPANY (Limited).—Capital 50,000*l.*, in shares of 10*l.* To purchase certain works at Whitewall, near Upnor, Kent, and carry on same. The subscribers (who take one share each) are—H. Alcock, 38, Drapers' Gardens; E. J. Row, Gravesend; A. H. Wood, 39, Lothbury; J. Kendall, jun., United Service Club; J. V. Snell, 5, Great Winchester-street; J. H. Wood, 7, Bryantwood-road; G. F. Rogers, 5, Winchester-street Buildings.

BANK OF WEST AFRICA (Limited).—Capital 50,000*l.*, in shares of 10*l.* To carry on a banking business in all branches in connection with that continent. The subscribers are—G. B. Holroyd, Ryfleet, 50; H. C. E. Wilmot, 16, Mark-lane, 10; A. Dempsey, Liverpool, 100; C. J. Sadler, Liverpool, 100; S. H. P. Bouverie, 3, Colingham-road, 15; H. Bird, Fulham, 5; W. G. Griffon, 158, Wool Exchange, 5.

LA CONCEPCION GOLD MINING COMPANY (Limited).—Capital 100,000*l.*, in shares of 1*l.* To purchase or otherwise acquire a mineral property and mines situate in the district of Pastora, Guayana, State of Venezuela, and all rights, privileges, powers, &c., belonging thereto, as well as the machinery, plant, and other effects. To work and develop this or any other property, and generally to conduct a gold mining business in all its branches. The subscribers (who take one share each) are—E. Keate, Shoeburyness, lieutenant-colonel; R. Angus, 41, Russell-road, merchant; F. G. Hodgson, Ramsgate, major-general; F. C. Sanks, 110, Cannon-street, mining agent; S. Druff, 9, Union-court, optician; J. S. Johnson, Easton-road, accountant; W. Shepherd, 6, Coleman-street, accountant.

THE COUNTY HOTEL, ROTHBURY (Limited).—Capital 15,000*l.*, in shares of 10*l.* To carry on a hotel company's business in all branches. The subscribers are—E. Eccles, Newcastle-on-Tyne, 75; R. Muckle, Tynemouth, 50; J. Lamb, Newcastle-on-Tyne, 35; R. Brown, Newcastle-on-Tyne, 28; R. Dunkin, Rothbury, 50; W. J. Jobling, Newcastle-on-Tyne, 10; W. Davy, Rothbury, 5.

THE COED-Y-FEDW AND PANT-Y-BUARTH LEAD COMPANY (Limited).—Capital 25,000*l.*, in shares of 1*l.* To acquire by purchase or otherwise certain lands, mines, and mining rights situate in the parishes of Llanferas, Denbigh, and of Mold, Flint, for the purpose of carrying on the business of mining, smelting, quarrying, dressing, making merchantable, disposing, and selling lead and other minerals and substances to be obtained from such properties. The subscribers are—D. G. Kennedy, Bermondsey, M.D., 100; T. Gamble, Richmond, gentleman, 500; E. J. Bartlett, 30, Great St. Helens, sharedealer, 100; J. Wood, Stoke Newington, secretary, 5; A. Chandler, 66, Bishopsgate-street, solicitor, 5; J. S. Eastes, 17, Water-lane, shipbroker, 5; J. W. Norfolk, Brixton, clerk, 5. The chairman's salary is to be 50*l.*, and that of each director 25*l.* per annum.

LONDON BUILDING, CONTRACTING, BRICKMAKING, AND INVESTMENT COMPANY (Limited).—Capital 50,000*l.*, in shares of 5*l.* To carry on the business of builders, contractors, brick and tile makers, &c., at Lewisham. The subscribers (who take one share each) are—A. Drew, Lewisham; H. E. Salmon, 69, Haymarket; T. Terrill, 4, Brick-court; J. Albany, Walworth; J. R. Grey, Brighton; C. J. Davis, 118, Newgate-street; F. Prim, 112, Shoe-lane.

H. W. BRAND (Limited).—Capital 15,000*l.*, in shares of 10*l.* To acquire a business and develop the manufacture of preserved provisions, concentrated beef tea, soups, sauces, &c. The subscribers (who take one share each) are—R. Carr, 14, Warwick-street; J. H. Evans, Dulwich; J. T. Carr, Chiswick; H. d'Power, 21, Sackville-street; E. F. Quilter, 158, New Bond-street; A. Pearce, Beckenham; H. Maw, South Norwood.

THE BRUSH LIGHT IN NEW YORK.—The 15 lights on Broadway are all in one circuit, nearly 4000 ft. long. They are mounted on posts 20 ft. high, so that the eyes of persons approaching them are not exposed to the direct glare of the light. Mr. Brush has dispensed with the frosted globes, only a small portion of the under side being

ground, while the rest is clear glass. In this way he avoids the very high losses incident upon the use of the ordinary globes, while, on the other hand, the light is not so diffused. The quantity and the quality of the light, says the Iron Age, is the most satisfactory yet shown, and, therefore, the announcement of the results of careful practical tests will be looked forward to with the greatest interest.

SCIENCE TEACHING POPULARISED.

The thoroughly sound and practical character of the Popular Lectures of Scientific Subjects by Professor Helmholtz has always secured them an enormous circle of readers in Germany, and those which have been translated have enjoyed an almost equal share of appreciation in England. The first series is already familiar to English readers, and the same translator—Professor E. Atkinson, of the Staff College—has now completed the second series, which contains several lectures of especial interest—the obituary lecture on Gustav Magnus, on the origin and significance of geometrical axioms; on the relation of optics to painting; on the origin of the planetary system; on thought in medicine; and on academic freedom in German universities. These addresses were in various places, and are, therefore, as varied in character as they are interesting. That on Magnus, delivered at the Leibnitz meeting of the Academy of Science, is an excellent specimen of what can be done in fully referring to the merits of a man without descending to fulsome adulation. The lecture on the origin and significance of geometrical axioms, given before the Heidelberger Dozenten Verein, is, of course, distinctly different in character, but is not less clear and accurate. The chapter on the relation of optics to painting is condensed from a series of lectures delivered in Cologne, Berlin, and Bonn, and although Helmholtz made a kind of apology for lecturing on such a subject (being professor of physics in the University of Berlin) it would be difficult to find elsewhere an equal amount of information in the same number of pages. An equally favourable opinion may be pronounced with regard to the lecture on the planetary system, and the address on thought in medicine; whilst the address on academic freedom in German universities, which was considered unnecessarily severe on the great English universities, and was, moreover, in some particulars not absolutely accurate, has been slightly modified, and corrected to date.

After these observations it will be unnecessary to say that the selection made is excellent, and that a large amount of valuable instruction may be obtained by studying the volume; and with regard to the translation, the reputation which Professor Atkinson has already obtained in that direction will be accepted as a guarantee for its accuracy. To ensure the ready comprehension of the matters dealt with the work, which is published by Messrs. Longmans, is well illustrated where necessary with suitable diagrams, so that it is altogether a permanent tribute to the author, and a decided credit to the translator. It will assuredly be widely read.

STREET'S INDIAN AND COLONIAL MERCANTILE DIRECTORY.

From a business point of view few works are of greater utility to merchants and shippers than the above, the new edition of which—that of 1880-81—has just been issued by Messrs. Street, of Cornhill and Searle-street. The directory is now of such long standing that its character is very widely known; but as works of this class are constantly required in new channels it may be well to state that in addition to the trade returns, tariffs, populations, &c., the present volume contains full particulars (with rates and times of transit) of the steam and other communications with the various places treated of, wherever anything like a regular mode of conveyance or correspondence exists; and the average time of transit by sailing vessels is also given. The leading merchants and traders of every class, likely to be of any use to manufacturers and all engaged in commerce, are fully enumerated, together with the leading physicians, surgeons, solicitors, and other professional men. The principal products, and details as to the articles of which the Trade Returns chiefly consist, will also be found; also tables of the local weights and measures, and the value in English money of foreign coins. All the London agents to each of the banks are named, so that a merchant is enabled to see to whom to apply, where financial information or assistance is needed in connection with any particular town or city.

The trader naturally requires to know where a particular business is carried on and who is engaged in connection with it; and in this respect Street's Directory leaves little to desire. Wherever possible the principal Government officials and consuls in each town are given. Particulars of the various railways in operation, or in course of construction, are also supplied where practicable. The number of towns and cities has again been increased. The new places include Monte Video, Winnipeg, Lagos, Aden, and several minor but not unimportant commercial towns. Still more would have been included but for the principle by which the proprietors have all along been actuated—never to give any information that is not, as far as all possible care and labour can make it, perfectly reliable. With the next publication still further progress will be made and other improvements added. Maps are again given of all the principal countries of which particulars are furnished in the letter-press. These have been specially revised for the work, with the view to show the relative positions of the chief towns, without confusing the maps with a host of names of unimportant villages and stations. In the present edition the names of the chief towns, the principal products of the different countries and similar information, have been alphabetically arranged, so as to facilitate reference. The directory is altogether a very useful addition to the counting-house library.

MINES AND MINERAL STATISTICS OF NEW SOUTH WALES.—The annual report of the Department of Mines has just reached this country (Sydney: Thomas Richards, Government printer), and is obtainable of Messrs. Trübner and Co., of Ludgate Hill. It forms a handsome quarto volume of about 230 pages, has abundant illustrations in the text, and is accompanied by a complete set of maps to render the whole thoroughly intelligible. The colony has now yielded over 50,000,000*l.* of mineral, and the figures for 1880 exceed those of 1879. In addition to the reports on the several metals under their special headings there is Mr. Wilkinson's progress report of geological survey, and on the water supply to the Elrington gold fields and several others. The report being a Government document is issued at a nominal price—10s.—and contains an enormous amount of information. It will be more fully referred to in next week's Journal.

INVENTOR'S ALMANAC.—The new edition of the almanac published by Mr. Ernest de Pass, patent agent, of Fleet-street, is fully equal to its predecessors, and will be of special value to inventors, since in the calendar the usual uninteresting matter—age of the moon, time of high tide, and so on—is replaced by notices of celebrated inventors and discoverers who have been born or died on the particular day under consideration, whilst a dozen well executed pictures of important machines well indicate the progress of invention.

STEAM-ENGINES AND BOILERS.—A handsome illustrated catalogue of Chaplins' patent steam-engines and boilers, steam-crane, hoists, locomotives, pumping and winding engines, ships' deck-engines, sea-water distilling apparatus, and so on, has just been issued by Messrs. Alex. Chaplin and Co. of Cranstonhill, Glasgow, and Queen Victoria-street. Each class of the manufactures to which the firm give special attention is now more fully described and illustrated than heretofore, and data given to enable purchasers abroad to determine, without delay in correspondence, the power and type of engine best suited to their requirements; approximate shipping weights being likewise stated for guidance in calculating freight. These particulars will be of service also to many at home. Strength and simplicity are especially studied in the construction, and the best materials and workmanship are employed. From their compactness of arrangement their engines and boilers can be applied in situations where steam-power could not otherwise be available. Every engine and boiler is thoroughly tested under steam before being despatched

from the works, the boilers being also proved by hydraulic pressure to twice the intended working steam pressure; and, when required, certificates to this effect are given. Special fittings for engines and boilers, as required by law in foreign countries, receive particular attention. The catalogues may be usefully consulted by all users of steam power.

VICTORIAN YEAR-BOOK.—We have been favoured by the Government Statist of Victoria—Mr. Heylin Hayter—with the new edition of this valuable volume of statistics. It appears that there were but 190 miners engaged in mining for metals and minerals other than gold during 1879. The estimated value of the produce raised from Victorian mines and quarries in 1879 was—gold raised, 3,035,788*l.*; other metals and minerals, 43,487*l.*; stone raised, 57,252*l.* = 3,136,527*l.* From the manner in which the statistics are recorded, the entire volume is made really readable for everyone, and its utility is thus much enhanced.

HOW TO MANAGE A STEAM-ENGINE.—Under this title one of Wyman's Technical Series, by Mr. M. POWIS BALE, M.I.N.E., has just been published as a handbook for all who use steam (London: Wyman and Sons, Great Queen-street, Lincoln's Inn Fields), the author explaining that the book is not written as a technical engineering work, but is intended for the use of steam users generally, especially for those in the colonies and other remote districts where skilled labour is not easily obtainable. After treating of steam generally in the introductory chapter there are chapters on the construction, starting, and working of portable engines, horizontal engines, steam boilers and setting them, fuel for producing steam, incrustation and corrosion in steam boilers, vertical engines and boilers combined, lubricating and packing steam-engines, management of belts, explosion of steam boilers, gas engines, rules to find the actual horsepower, &c., instructions to firemen, and rules for the management of steam boilers. The instructions are also issued in large type and mounted on rollers to hang up in the workshop or engine shed. The volume contains a large amount of information.

THE AURIFEROUS DEPOSITS OF MYSORE. THE MADRAS GOLD MINING COMPANY.

Although from attention having been first directed to the Wynad capitalists have heard somewhat more of that district than of Mysore, it is considered doubtful by many whether the latter will not be first in the race to enter the list of dividend paying Indian gold mines, so that the Madras Gold Mining Company is brought forward with the full confidence of the promoters that it will have a favourable reception from the public. The Colar or Oregum gold fields are certainly among the most celebrated in India, so that it is not surprising that already there are several important companies—the Mysore, the Colar, the Oregum, the Nundydroog, and the Mysore Reefs—whose object is to develop them. It is on the land immediately adjoining the Mysore Reefs property on the south that the Madras Gold Mining Company propose to carry on operations, and as all these concerns have an ample extent of ground, and several of them hold under the same mineral lord, there need be no fear of prejudicial rivalry, whilst there will assuredly be the advantage of facilities for an interchange of views in the event of any practical difficulty arising in the course of working the mines. The capital of the new concern has been fixed at 135,000*l.*, in shares of 1*l.* each, of which 85,000*l.* (25,000*l.* in shares and the remainder in cash) is appropriated as purchase money, leaving 50,000*l.* working capital, which it is considered will be ample, as a plant is already on the property, which will be taken over at a valuation.

The prospects of the several Indian gold mining enterprises are so nearly equal, since all the opinions are formed upon the ancient native workings, as modern European engineers have not done sufficient work upon any of the reefs to enable them to speak with certainty, that capitalists probably do well in preferring to purchase at par or at a small premium before a company attains high favour in the market, instead of waiting for further development and paying heavily for the additional experience gained. The Mysore, Colar, Nundydroog, and Mysore Reefs are all at present standing at so small a premium that investors have a favourable opportunity, and the Madras Gold Mining Company are now inviting subscriptions for 110,000*l.*, which can of course be had at par, and the prospectus, published in another column of to-day's Journal, will enable those who desire to do so to ascertain the merits of the enterprise. The company's purchase embraces 320 acres—the southern portion of the Mathamungalum block of the Oregum gold fields, which formerly belonged to the local Madras company of the same name as that now formed. The title, says the prospectus, is perfect, being by lease from the Mysore Government for 30 years, from Aug. 13, 1880. The rent is nominal, but a royalty of 5 per cent. on the gold raised is reserved, which will probably not be exacted, at least for the present, as Government desire to encourage gold mining enterprises. The mine is four miles from a station on the railway to Madras, which is distant 170 miles. The reefs, six in number, extend longitudinally upwards of 20,000 ft., and present at every point indications of being remarkably rich, several samples taken from them haphazard by Mr. Harris (the engineer appointed to make a special report on this property to Messrs. Arbutnot and Co.) having given a good show of gold. The reports of Messrs. John Harris, E. W. Lindon, John Munday, W. Vazie Simons, W. Bell Davies, and Capt. Rodgers, are most encouraging, and it is remarked that it has just been discovered that one of these reefs on the Oregum lot, 5 ft. in width, has been formerly worked by native miners, who have taken away 3 ft., leaving 2 ft. untouched, in which particles of gold are stated by the manager to be visible to the naked eye, and this fact has since been verified by others. The Madras Company's property abounds with these ancient workings, which are allowed by the best authorities to afford evidence quite as striking as the presence of free gold itself.

With regard to the present position and prospects of the property the calculations made leave nothing to be desired. A battery of stamps will be erected immediately. These it is proposed to increase to a capacity of 100 tons per day. This at 1 oz. per ton (which is less than the yield at the Oregum Mine) should produce a net profit of 75,000*l.* per annum. Considering that many mines pay large dividends on less than ½ oz. of gold to the ton, the expectations indulged in as to this property appear to be amply justified. Mr. John Harris reports that it is stated that the ancient native miners have not mined to a greater depth than 60 or 70 ft. below the surface of the soil, and the truth of this assertion has been proved by a pit that was sunk on a very extensive old working by the Oregum Gold Mining Company on the north end of this field in 1876. At about 60 ft. below the surface the old workings were bottomed, and immediately below this water was met with, and to continue the sinking 30 ft. below the old workings a steam-engine had to be erected, and a 5-in. pump set to work to keep the mine clear of water. From this depth 17 tons of quartz was raised, and put through a stamper, yielding 40½ oz. of gold (assay 97½ per cent. gold, 2½ per cent. silver); this proved the richness of the reef far more satisfactorily than any number of small laboratory tests. There is little or no provision for storing water. Several breached tanks are on this block of land, and the bunds could be repaired by a moderate outlay, which would enable a good deal of water to be stored. This, together with the water expected to be pumped from the mines, and by using the same water over and over again, is anticipated would be sufficient for all requirements. The rainfall is about 40 ins. per annum. Any amount of native labour can be obtained—both men and women. Wages of men from 4 to 6 annas per day. The climate is good, and Europeans can work all the year round. The nights are always pleasant and cool. The thermometer ranges from 85° maximum to 65° minimum in shade. The hot season lasts about six weeks—from the end of March to the beginning of May, when showers of rain fall, making the temperature very comfortable.

In conclusion, he recommends certain work to be done "which would enable sufficient mining ground to be opened out and worked without further outlay for years. If this work is taken in hand at once and prosecuted with vigour, a good deal of quartz may be mined in a year after commencing, and in 18 months the amount that could be mined would be greatly increased, and in two years would be limited only by the amount of labour brought to bear on it—say,

80 to 100 tons per day ought to be easily wrought. Mines could then be opened out on other parts of the property, and indefinitely extended, and the probability is the mining ground will prove better further in."

The board of direction include gentlemen of considerable Indian and gold mining experience, so that as the property is acknowledged to contain an abundance of auriferous wealth there should be little delay in making a return to the shareholders. It is mentioned that the Oregum Company recently commenced crushing with machinery of the roughest description. By latest advices the result shows the very high average of 1½ oz. per ton, and competent authorities believe that a still larger yield may be expected when the improved machinery recently ordered arrives upon the ground, particularly as with depth the stone, as is now proved, becomes more auriferous. The extraordinary richness of these reefs had been already proved by two lots of ore, 17 and 9 tons respectively, produced in course of sinking, which produced an average of 2·66 ozs., or nearly 10*l.* worth of gold to the ton, the cost of production being under 1*l.* per ton. From this it would appear that the company will commence operations under very favourable auspices, and that if there be not a speedy return for the capital expended upon it it will certainly not be from any fault of the property.

UNALTERABLE BANKERS' CHEQUES.

Although considering the enormous amount of money which changes hands by means of cheques the amount of forgery and fraud connected with them is comparatively small, it would excite surprise to learn how large a sum total these little and almost unnoticed frauds amount to; fortunately, however, Mr. Anthony Nesbit, the well-known agricultural and consulting analyst, has discovered a means of rendering any alteration of the cheque practically impossible. Mr. Nesbit points out that all so-called secure cheques have depended heretofore upon an isolated chemical reaction, or a number of isolated chemical reactions, whereby some stain is produced upon the application of chemicals, or whereby the colouring matter of the cheque disappears to the eye upon the application of chemicals. With regard to the above, every chemical substance has its solvent or solvents, and also for every substance can be found a chemical in which it is not soluble. Now, it so happens that writing ink is a compound of organic acids of a very unstable nature, consequently, contradictory as it is to popular ideas, there are innumerable solvents for this substance; therefore, if a forger finds that a certain solvent of the ink dissolves out the fine lettering or fine lining of a cheque, there is nothing easier for him than to find another solvent of the ink which will not dissolve out the fine lettering or lining, or to use suitable mordants to fix the fine lettering or lining before commencing to operate upon the writing ink.

Another recommendation of Mr. Nesbit's discovery is that it is extremely simple, whilst most of its predecessors have been very complicated. In dissolving writing ink it is necessary to have the solution either slightly acid or slightly alkaline. He, therefore, makes his cheque by using a dye, which is affected both by acids and alkalis, but which is one colour in acids and another colour in alkalis, and print upon his document partly in acid and partly in an alkaline ink, so that the inscriptions are apparent only by virtue of their acidity or their alkalinity. When such a document is placed in dilute acid the whole of the colour becomes of the acid tint, and the printed inscription is lost; and if it is then placed in an alkaline solution the whole becomes alkaline, consequently the inscription is not regained. If such a cheque be placed in dilute alkaline solution the whole of the colour becomes of the alkaline tint, and the printed inscription is lost; and if it is then placed in acid the whole becomes acid, consequently the inscription is not regained. All solutions must of necessity be either acid, alkaline, or neutral. If it were possible to find a perfectly neutral solution that would dissolve out writing ink it would still be impossible to alter the cheque, as it would only be necessary to have the acid part stronger than the alkaline part, or the alkaline part stronger than the acid part, in order to ensure a complete blurring of the document upon immersion in a neutral solution.

But perhaps the greatest recommendation, if the invention is considered with regard to its commercial utility, is that in practice acids and alkalis can be used which do not injure the costly plates usually employed in cheque and bank-note printing, so that any bankers disposed to give the process a trial would incur absolutely no extra cost should they subsequently determine to revert to the old system. The process is at once efficient and ingenious, and it is not doubted that when fairly tested it will come into very general use.

THE MINERAL WEALTH OF AUSTRIA.

The last available official statistics referring to the mining and metallurgical industries of Austria are those for 1878, which show no improvement as compared with the preceding year. The mining productions which were obtained in 1878 represented a value of 39,718,571 *fl.*; therefore, less by 997,177 *fl.*, or 2·45 per cent., against the preceding year. In the smelting-houses the production amounted to 22,316,309 *fl.*; therefore, less by 92,605 *fl.*, or 0·41 per cent., against the preceding year. The total value of State mining and smelting-houses production, after deducting the value of the wrought ores passing smelting-houses, amounted to 53,592,348 *fl.*; therefore, less by 725,452 *fl.*, or 1·34 per cent., against the preceding year. The mining products were—

	Florins.	Value.	Per cent.	Number.	Workmen.	Per cent.
Common coal	17,682,166	44·52	26,192	44·17		
Brown coal	13,829,175	34·82	26,340	32·15		
Silver ores	2,924,463	7·36	5,399	6·59		
Iron ores	2,004,280	5·05	4,964	6·06		
Lead ores	1,187,455	3·10	3,571	4·36		
Mercurial ores	696,266	1·75	703	0·86		
Other ores	1,394,765	3·40	4,459	5·81		

Total..... 39,718,570 100·00 81,928 100·00

The value of the smelting productions for the same period was 22,316,319 *fl.*, and their treatment gave employment to 9778 men.

Salt-works form in Austria a branch of mining; the salt production and sale are monopolised by the State, and its financial result figures in the Budget as a State revenue. The production of salt is carried on in the salt-works, of which three exist in Upper Austria, one in Salzburg, one in the Bukovina, one in Styria, and one in the Tyrol, or in the sea salt-works of Dalmatia and Istria, and in the rock salt-works of Galicia. The number of metrical centners produced in 1878 was—rock salt, 553,854; refined salt, 1,500,853; sea salt, 219,624; and salt for industrial purposes, 138,606. The productions experienced an increase in the two first-named items by 12,879 and 9742 metrical centners respectively, and a decrease in the two latter-named by 119,654 and 607 metrical centners respectively against 1877. Compared with 1877, the value of the total production, amounting to 21,531,820 *fl.* in 1878, shows a decrease to the amount of 791,974 *fl.*

The number of workpeople amounted to 8707, of whom—5518 were men, 1735 women, 1454 children. The difference against 1877 is a decrease of 113 labourers—a decrease of 194 men as against an increase of 75 women and 6 children. The principal number of workpeople is employed at the sea salt-works in Istria—4409, or more than 50 per cent. of the total number with productions valuing 1,240,000 *fl.* In this production the chief part of workpeople consists of women and children—1715 women and 1450 children. In the rock salt-mines 1345 workpeople are employed, and the rest in the salt-works. Six casualties took place in 1878, one of which proved fatal, and the remainder only slight, which is proportionally a favourable result. The Austrian and English florins are of similar value. The wages of the workmen vary according to the activity of each workman, to the mode of production, and to the province. In the salt-works the daily pay of a workman amounts to 60 kr. up to 1·05 *fl.*; the bargains, however, up to 1·40 *fl.* In the rock salt-mines of Galicia, however, the pay for a shift is on an average 58 to 85 kr., and in the salt-works 76 to 96 kr.; besides which most of the salt-works and salt-mines make grants of certain quantities of salt and firewood, according to the number of the workman's family.

THE MINERAL WEALTH OF THE TRANSVAAL.

A valuable and interesting report on the mineral wealth of the Rustenburg district by Mr. T. Collingwood Kitto is published in a recent number of the Transvaal Government Gazette (Transvaalsehe Gouvernements Courant), and leaves no doubt as to the commercial value of the locality. The district being supposed to contain certain minerals, his Excellency Sir W. Owen Lanyon directed the examination and report, and has now ordered its publication. Mr. Kitto finds wherever he goes in the Transvaal that every person who holds a farm believes himself also to be the possessor of great mineral wealth, and if a quartz reef of any kind crosses his property he invariably pronounces it to be auriferous. This is a mistake made by many persons in the neighbourhood of Rustenburg. Mr. Kitto first examined a large quartz reef in the Magalisberg Range, almost due south of Rustenburg. The longitudinal bearing of this reef is about east and west, and its dip with the horizon is about north, and it is largely mixed with ferruginous sandstone. He has no hesitation in pronouncing it to be non-auriferous, and of no value. The other quartz reefs pointed out in the neighbourhood of Rustenburg are in Zwart Koppies. These reefs, six in number, have also an easterly and westerly bearing, and their dip with the horizon about south. He was informed that some Australian gold miners visited this place some years ago, and pronounced these reefs capable of producing gold in payable quantities; notwithstanding he is obliged to pronounce those reefs to be non-auriferous, and of no value.

But if there be no gold reefs it is probable that ample compensation will be found in the abundance of other minerals, for Mr. Kitto states that the formation in and around Rustenburg is metamorphic, and is almost universally composed of alternate runs of grey and red gneiss. It is in this kind of formation that veins or lodes containing the ores of iron, tin, copper, and silver occur in payable quantities; and although gold is sometimes found in minute quantities, it is seldom or never found in payable. He, therefore, advises the inhabitants of Rustenburg to direct their attention exclusively to searching for tin, bismuth, and copper, of which there are very favourable indications throughout the district. And as these minerals are frequently found in large quantities they are often more profitable to the operator than mining for the more precious metals. Drawing a line from Rustenburg to about five miles north of Rooiberg, and diverging about 20 miles east and 10 miles west of said line, will give a fair outline of the tract of country examined by Mr. Kitto in that direction. After leaving Rustenburg he saw nothing of importance until within about four miles of Aapjes River, where is a formation of most beautiful marble, white, mottled, and veined. This formation is at least two miles broad, and is capable of producing blocks of almost any size.

From Aapjes River to Copper Fontein he frequently crossed large veins of quartz, but upon examination found them to be of no value. At Copper Fontein he was shown samples of what had been mistaken for copper; but he only found a small mine which had evidently been dug by natives, in which were several veins of red hematite (iron ore), but nothing of any value. Finding nothing at Copper Fontein he explored in an easterly direction, and soon discovered a course of granitic porphyry, bursting through the sedimentary strata. This formation he found to be highly mineralised, and it soon proved a clue to a large and valuable copper centre, which he calls No. 1 Formation. It appears that these copper formations have been known to the Dutch for years. The containing rock is granitic porphyry, and the character of the ore is green carbonate, which when pure contains 57 per cent. of copper. About a mile to the south of this formation, and in the direction of Val Koppie, there is another very large copper centre, which Mr. Kitto designates No. 2 Formation. This is a very valuable deposit of copper, and as far as can be seen runs parallel to No. 1. The character of the ore is much the same as in No. 1 Formation, being green carbonate impregnated with blue carbonate of copper. The latter contains about 55 per cent. of copper. This has been extensively worked by natives. About a mile to the south-east of No. 2 Formation is Val Koppie, or No. 3 Formation. This, he says, is most certainly a very valuable copper centre; in fact, a great portion of the north side of the koppie is green with silicate of copper. It contains a little green carbonate, but silicate of copper predominates. Pure specimens of silicate contain about 35 per cent. of copper, but its value indirectly is of far greater importance than its direct value, inasmuch as it always overlies large deposits of melancite (black copper ore), which contains from 75 to 80 per cent. of copper.

From Val Koppie he went about six miles north of Rooiberg. As to No. 4 Formation Mr. Kitto states that this is also a very large copper centre, and has been extensively worked by natives over an area covering several acres. The natives here followed down the veins of copper as far as their primitive mode of working would admit, and when they could follow the veins down no further they threw the debris into their excavations, and worked the shallow ground so long as it would pay them to do so, but even the debris left by the natives would pay experienced hands to work, if there was a more cheap and expeditious means of transport. With regard to the continuous working of these mines at a profit he is afraid that the present price of transport from them to the coast is too great to enable the province to compete successfully with the copper mines of South America. But as soon as the line of railway is complete to Delagoa Bay, and the mines properly opened, there will be no difficulty in exporting from 2000 to 3000 tons of copper ore per month from the various mines. There is every probability of meeting in depth with some pure copper, and also ore of a higher quality, when the profits would, of course, be proportionately higher. But as a professional man, Mr. Kitto says that he cannot hold out hopes that are not certain of being realised.

Those copper mines with a line of railway within 40 miles of them can be worked at a very handsome profit, as Mr. Kitto shows by the subjoined estimate:—Cost of raising, cleansing, and bagging 1 ton of ore, 5*l.*; carriage to railway, say 40 miles, 1*l.*; railway carriage to port, 3*l.* 10*s.*; sea carriage to England, 3*l.*; wharfage, agency, &c., 5*l.* = 17*l.* 10*s.* Thus leaving a profit on 1 ton of 50 per cent. ore of 12*l.* 10*s.*, and at the same time placing the proprietors in a position to profitably export ore of a much lower quality. It may not be out of place to remark that should the coal fields of the Transvaal turn out according to the general expectation, most of the copper ore would be smelted in the province, which would create a new and profitable industry. Although the copper mines examined by him cover such a large area, he believes that by following up the same run of granitic porphyry in an easterly and westerly direction many other mines will be found of equal or perhaps greater richness. The country, continues Mr. Kitto, as is generally known, contains such large deposits of iron ore that a reference to it is almost unnecessary. He may, however, remark that he passed over millions of tons of magnetite and red hematite, the former containing 72 and the latter 70 per cent. of iron.

As to the gold fields, Mr. Kitto states that after leaving the copper district, he at the special request of His Excellency, examined the Blue Bank Gold Fields. The general formation in the Blue Bank district is a micaceous clay-slate, and it is in this kind of formation that gold is more extensively found than in any other. What is properly known as the Blue Bank digging is a long narrow gully, running through the farm of Messrs. Jennings. The alluvial deposit, which in no case exceeds 150 ft. in breadth, is largely composed of clay-slate, in which frequently occur angular fragments of quartz, which has been washed down from the quartz-reefs crossing the hill at the head of the gully. The small amount of quartz which has been washed down, and other geological evidences, go to prove that the disintegration of the auriferous formation has been very small indeed, and, consequently, the amount of alluvial gold cannot be large, inasmuch as it still remains in the quartz-reefs intact. As an alluvial diggings the Blue Bank is of very little value; at the same time he believes that eight or ten industrious men might do very well for twelve or eighteen months by going, say, 200 ft. below the original prospecting claim, and sluicing the whole of the alluvial deposit from thence to the head of the gully.

With regard to the quartz reefs, he says that in making a careful examination of them he was agreeably surprised to find them large, regular, and well defined. He had no hesitation in pronouncing the,

to be highly auriferous, even before he reduced the matter to a practical test. These reefs appear on the surface as five in number, and traverse the hill in an easterly and westerly direction. The most southerly reef dips at an angle with the horizon of 45°, and the most northerly reef dips at an angle of 75°. It is, therefore, his opinion that those five reefs will unite in depth and form what is known in mining phraseology as a champion lode. The quality of the precious metal found in those reefs is not less than 23 carat, and is composed almost entirely of gold dust, which, as a rule, is more equally disseminated through the veins than gold of a rougher character. He tested a very small quantity of the quartz taken at hazard. Not a trace of gold could be seen in the stone, and yet it produced at the rate of over 2 ozs. of gold dust to the ton. This is a very fine property for a good company to handle, and there is already almost enough of auriferous quartz exposed to view to meet the expenses necessary for the erection of machinery for the proper development of the property. There has been a little work done in the neighbourhood of those quartz reefs. The work itself has been fairly done, but the design appears to him somewhat unprofessional, and calculated to lead to failure.

Judging from the little he has seen of the Transvaal, he is inclined to think it is rich in minerals, inasmuch as in the short space of a month he has found traces of tin and bismuth at Rustenburg; and he believes that if a systematic search were made those minerals would be found in workable abundance. He has also in that time seen four very large copper centres, which under ordinary circumstances, will pay splendid dividends. And he has inspected a quartz reef at Blue Bank, equal in value to some of the best quartz reefs now being worked in Australia. He further remarks that, although over the line he travelled, nothing of importance escaped his notice, it would take him more weeks than he employed days to thoroughly explore the districts through which he passed.

FOREIGN MINES.

GOLD RUN.—Dec. 23: We commenced washing on 20th inst., and shall have water enough to wash continually without doubt. It has been raining for more than a week, and still continues to pour down. There are good prospects for more than an average season. In the hydraulic mine we have now opportunity to wash a large amount of dirt, and I think can make some good runs. We have not been able to run the mill continually, as the breast was not opened wide enough to keep us in dirt, and on the south side of the bedrock where we are cleaning we have not got a large amount of cement, as it was washed close, leaving but 2 or 3 ft.; however, it is paying well for cleaning. I have cleaned up sluices after crushing 700 carloads, and have about \$1100. I do not think the mortars are catching any great amount. They have not been opened since starting. The cement we are now catching is much better than that crushed in the first run, as shown by above results.

RUBY AND DUNDERBERG CONSOLIDATED.—Report for week ending Dec. 19.—The main shaft has been timbered 30 ft., and sunk 9 ft.; total, 90 ft. below the 600 ft. level. The 600 has been advanced 29 ft.; total, 260 ft. from the shaft; a small seam of good ore about 6 in. wide was cut through during the week—this will be prosecuted further as soon as practicable. A rise has been commenced on a small seam of ore at a point 40 ft. north of the north winze on the 500; the ore is improving as it goes up, and is now about 2 ft. wide, of good quality. The winze at the end of the 500 south still continues in good ore; this promises to be the most extensive one body yet discovered, but it will not be available until the 600 is advanced to and connected with the winze. Progress this week, 10 ft.; total below the 500, 70 ft. We have not extracted any ore from the slope above the 500 south this week, but a rise has been extended up in ore 20 ft. above the slope. A drift has been commenced from the west cross-cut on the 400 to connect with the rise from the slope above the 500 south. The 300 north has advanced 12 ft.; total from old works, 96 ft.—no change. The 300 west cross-cut has advanced 15 ft.; total, 360 ft. from the north drift from old incline. Have shipped only 13 tons ore this week, owing to the state of the roads. Have 41 men at work, and three tributaries. Bullwhacker. After consulting with Mr. Dixon in regard to the quality of the ore, and after taking several samples, we have considered it advisable to commence work immediately. A small hoisting-engine has been purchased from the Eureka Consolidated Company, which will enable us to work to better advantage than heretofore. I expect to have it in good working order in a week or ten days, weather permitting.

—Telegram received from Eureka Jan. 11.—“The week's run of the furnace was \$9500, from 188 tons of ore, producing 36 tons of bullion. The shipments for the week were 129 tons. The quantity of ore at furnace, dump, and in the mine ready for extraction is 2000 tons.”

JAVALI.—(L. C. Chambers, Dec. 6.) It gives me great pleasure to send you a very satisfactory report of the past month's working, accompanying the same with a good remittance of gold.—Mine: 48 vases were driven in different parts of the mine; the remainder of the stuff brought to the mill came from the deposits and from our sundry labourers at the various surface workings. This month I expect to erect the windlass over the shaft under Socorro. Nothing has been done under the Nispero, as on account of the heavy rains the shaft became half filled with water. Everything is in good order, notwithstanding the frightful amount of rain we have had for the past three months. The only difficulty we experienced was in keeping the mill supplied with quartz, as all the shafts became so sticky that the filling of the car was a matter of some trouble. The quality of the quartz continues the same; this month there is a slight improvement of 3 grs. per ton, making the average 4 dwts. 20 grs., against 4 dwts. 17 grs. of the month of October.—Mill and Remittance: The excessive amount of rain caused another piece of our dam to break away on the morning of the 28th, but I am glad to say it was nothing of any very great consequence in comparison with the breakage of September; and by placing a large staff of men the flow of water was stopped in two days. By appearances I think we shall have better weather this month. I sincerely hope so, in order that we may enter on our mill work 20½ days, sometimes with 30 stamps, and at others with 25, according to the supply of quartz. We crushed 1990 tons of stuff, which yielded 481 ozs. of gold, making an average of 4 dwts. 20 grs. per ton. With the result of the tallings mill the total remittance consists of 553½ ozs. I think I can safely promise you an equally good remittance next month, although, of course, the Christmas holidays will greatly interfere.—Tallings Mill: The result from this mill was slightly better than last month, a part of which is owing to my having had some scrapings left from the former month. We treated 210 tons of tallings, which yielded 72½ ozs. of gold, making an average of 6 dwts. 22 grs. per ton. I have already commenced to get in the timber for the square stamps; in fact, the blocks for the foundation are ready for placing. As soon as the weather improves I intend to order the timber for the tramway, which we shall have to construct from the Esperanza Mine to the mill. The expenditure was \$937. 6s. 2d.; the remittance is valued at 1300l. I hope to be able to give you an equally satisfactory report next month.

COPIAPO.—Thos. B. Hall, Nov. 27: Dulcinea Mine: Our different points of operation here, on the whole, are looking well. We are proceeding as rapidly as possible with the cutting of the drift, and will require some 15 or 20 days more to complete this. We have started to drive the 180 south, and hope to commence to drive the northern end at the same level in a few days. The winze sinking below the 170, south of Fletcher's shaft, is looking well, the lode being now 3 ft. wide, and yielding over 3 tons of ore of 25 per cent. per fm. The 170 south is still holding good, but the lode appears to be narrowing a little. The 170 north is now giving 1 ton of ore per fathom. The 150 end north has also improved, now giving 1½ ton per fathom. No change of importance has taken place at any of the other points. I have given a command to sink Holland's shaft 47 metres, at \$50 per metre. The depth will communicate with an end that we are driving in that direction. We have a very fine lode to commence our shaft on, and judging from appearances this part of the mine in depth should in my opinion be of some advantage to the owners.—Checo Copper Mine: I am very much gratified to inform you that we have a small improvement here. In my letter of March 2 ult. I informed you that we were about to drive a cross-cut to intersect the north lode, which was discovered as anticipated at the 40. The end is now yielding 1 ton of ore per fathom. This, of course, is not very rich at present, but it may lead to something better. All other points without material change.—Silver Mine: This continues to be very poor; the branch in the bottom chile looks promising, but I have really very little hope that we shall derive much benefit from the mine for some time to come. Exchange on England, 29½d.

—Extract from the Chief Superintendent's Letter of Nov. 27: Remittance by this mill 731l. 5s. You have no doubt noticed that Dulcinea surpluses show handsome figures for July, September, and October, and the same will continue to be unquestionably for some time to come. The current half-year's accounts ought, therefore, to show very pleasing results.

VIRNBERG COPPER.—R. K. Roskilly, Jan. 5: Setting Report: Hadley Engine-shaft: The 140 cross-cut drive end of shaft, to six men, at 30 marks per metre; in the forebreast the lode is much improved in appearance and character, it being composed of a very fine mineralised quartz and yielding good stones of copper pyrites; the end is letting out a large stream of water, which is a favourable indication. Judging from the nature of the lode generally, as well as seeing that the water from the 140 is not as yet let down in this cross-cut, also the fact of the fine course of ore standing in the bottom of the 140, we have every reason to expect a still further improvement. The end is being pushed up with all speed in order to reach the footwall of the lode; when this is attained we shall immediately commence to open up the course of the lode both north and south of cross-cut.—140 Stope: To stop the back of the 140 metre level, south of shaft, to four men, at 13 marks per metre; lode worth 6l. per fathom, and promising an improvement. To stop the back of ditto, south of shaft, to six men, at 20 marks per metre; the lode is worth 8l. per fathom. To stop the back of this level, north of cross-cut (south of shaft), to six men, at 18 marks per metre, and the end to drive north of ditto, at 40 marks per metre; the lode in the former is worth 12l. and in the latter 15l. per fathom. To stop the back of ditto, north of rise, to six men, at 15 marks per metre; the lode here is a little fallen off in value, and worth only 10l. per fathom. The slope in back of ditto, north of rise, and on the hanging wall of the lode, is worth 8l. per fathom; set to six men, at 12 marks per metre.—120 Stope: To stop the back of the 120 metre level, south of shaft, to eight men, at 15 marks per metre; lode worth 15l. per fathom. To stop the back of ditto, south of shaft, to six men, at 16 marks per metre; the lode is somewhat disordered for the present by a horse of kilias, and is worth only 8l. per fathom.—100 Rise: To rise in back of the 100 metre level, north of shaft, to two men, at 15 marks per metre; the lode here has a most energetic character, and producing very good saving work for copper ore. This rise is being put up with a view to prove the ore-bearing ground standing between this and the 80; seeing that in the latter level the lode was very rich in copper, we have every reason to expect similar results in this rise through which we calculate to lay open a good piece of available ore ground.—100 South of Shaft: The 100 metre level to drive south of shaft, to two men, at 40 marks per metre; lode

in the end is large, and produces fair dressing work for copper—a very promising looking lode, and is shipped on the 30th ult. on board the “Ana Maria,” 2778 centners (133 tons) of copper ore for Swansea, viz. Rotterdam; the dressing is being pushed on so as to prepare for another shipment, towards which we have about 900 centners dressed.

CAPE COPPER.—The mine reports for November are received. In reference to the return as below from Spectacle, the mine agents write—it will be seen that the returns for this month are comparatively small, as announced in our last, owing to the continued falling off in the supply of water. The pump has been fixed in the bed of the river, and we are only awaiting the arrival of pipes in order to resume dressing operations.—Returns for November: Ockiep, 1200 tons of 29 per cent.; Spectacle, 53 tons; and Nababep, 29 tons; assays of the two last returns not received.—Arrivals at Swansen: The Glamraon and Ianthe.—Arrivals at Port Nolloth: The Alonzo.—Bills of Lading Received: 580 tons per San Jose, and 675 tons per Golconda.—Sales of Ore: 560 tons at 12s. 4d. per unit, and 100 tons at 12s. 6d. per unit.

“The following mines were unavoidably crowded out last week:—

RICHMOND CONSOLIDATED.—Telegram from the mine at Eureka, Nevada, Week's run, \$55,000, from 880 tons of ore. Return, \$40,000.
—R. Ricketts, Dec. 15: I beg to hand to you a report of the different operations for the past week. Lizette Tunnel cross cut has been extended 12 ft.; the ground in the present end is more favourable for drifting than it has been for some time. The 200 north cross-cut has been drifted 8 ft. in hard limestone. The 500, north from No. 12 chamber, has been advanced 11 ft.; ground in the present end hard. The 500, north from No. 14 chamber, has been extended 17 ft. in favourable ground for drifting. The 600 west drift has been advanced 14 ft. in shale. The 600, south from west drift, has been extended 8 ft. in hard ground. The 600, north from No. 14 chute, has been drifted 19 ft. without any change. The present end is in limestone, and is well defined. The 800 south, on quartzite, has been advanced 22 ft., with very favourable indications for ore. The men ore now drifting in an easterly direction on the connect of quartzite and limestone, to connect with the 600 west on quartzite, for ventilation; as soon as this is completed, a drift will be started west on the connect. The 700, south-west from winze, has been extended 15 ft. in limestone. The 700, north-west from winze, has been advanced 10 ft. without any change to mention. The 700, west from shaft, has been drifted 7 ft. in hard ground. The 700 north on line has been advanced 31 ft. in very favourable ground for ore. The 800 west has been drifted 7 ft. in very hard limestone. The 600 north-west on fissure has been extended 11 ft.; the fissure is still regular and well defined. The 800 south, on quartzite, has been advanced 27 ft., with very favourable indications for ore. The 800 north on line has been extended 20 ft. in fair looking ground. The 900 west has been drifted 7 ft. in hard ground. The 900, north-west on fissure, has been advanced 8 ft.; the ground is somewhat harder, but the fissure is still regular. The 900 winze has been sunk 11 ft.; now down a total depth of 62 ft., with favourable ground for ore in the bottom. The 15 chamber is looking well, especially in the eastern end, where the developments are better than we expected. No. 13 chamber is also looking better in the south end. The 14 is looking very well, and shows as much ore at present as it has for some time past. No. 16 chamber, below the 200, is opening out quite a good-sized body of ore. The ore in the 700, although not as yet developed in a large chamber, is looking very promising. Taking the mine on the whole, there is a decided improvement; the ore reserves have rather increased than diminished. The furnaces are running well, and smelting the average quantity of ore.

ALMADA AND TIRITO CONSOLIDATED.—Telegram from Mr. J. H. Climes, Dec. 21: We remit refined silver in bar to your order at the Bank of England, London, \$1100.

DON PEDRO.—Mr. Trearton (Dec. 4) writes: We have done all we can possibly do to get the tailings and the tailings from same towards and as near as is expedient to the accumulator until the masonry of the latter is completed to put on the timber bed and fix the accumulator.—Accumulator: The rough masonry is built up to the bottom of the accumulator, and centre stone for same fixed, and are now building around the sides, &c. Timber work for this well in hand, and advancing fairly.—Steam-Engine: A framework bed made on which to build masonry for laying on cast-iron bed, and to bolt to, and as soon as the masons finish the foundations now in hand they will at once go on about this.—Roofing: Before we can build in the boilers we shall be obliged to put on a raised cover over the accumulator, and on the roof of the wet weather. I think the work is going on faster now than formerly, and the masons have overhauled the roof of the work, and I hope to complete the erection of the machinery by the end of February next if all goes well.

CANADIAN COPPER AND SULPHUR.—Mr. FRANCIS BENNETTS, resident agent (Dec. 23), writes:—The general conditions and prospects of the mines have during the past week improved; and, although I would like to guard against exciting hopes that may not be fulfilled, still it is my duty to notice changes that may have occurred, especially when, as in the present case, the report is of a cheering nature. Although the most marked of the improvements to which reference is made have taken place at the Bolton and St. Francis Mines, still the progress made in both the Hartford Mine and the Acton Mine is encouraging; but as reference in these latter mines, more particularly to their condition as regards further workings and their prospects, points that you, as miners, would readily recognise, but is difficult for me to fully describe, consisting as it does in the facilities made for the attack of the ores, and not so much to discoveries made, although the results have been neither barren nor unsatisfactory. The report is too verbose to publish in extenso.

PIERREFITTE.—Jan. 1: The manager reports as follows:—Our works both underground and on surface have progressed with regularity during the past week. No. 1 stoper over No. 1 level yields 7 tons of lead ore and blends per fathom No. 2, below No. 1 level, 6 tons; No. 4, 15 tons; No. 5, 15 tons; No. 6, 8 tons; No. 7, 9 tons; No. 8, 5 tons. About 140 tons of ore have been broken from the lode during the past week, 73 of which have been sent down over the cable. We have been changing over from hand pulverising to that of crushing it during the past week, and that has interfered with the quantity dressed. We had a fall of snow, but although it did not interfere with our mining operations or sending the ore down over the cable, yet it helped to retard the dressing operations. The new crusher answers very well, and I have no doubts of satisfactory results.

RUBY AND DUNDERBERG CONSOLIDATED.—Dec. 12: The main shaft has been sunk 12 ft., and timbered 15 ft. during the week. The 600 ft. level has advanced 20 ft., total 237 ft. from the station; the ground has been rather hard during the week but is much softer at the face at present, and judging from the character of the rock in the 500, directly above, I anticipate much softer ground and better progress until the winze from the 500 is reached. The winze at the end of the 500 south drift continues in good ore; progress this week 15 ft., total below the 500 ft. 85 ft. The slopes above the 500 continue good, yielding the usual quantity of ore, in order that we may enter on our mill work 20½ days, sometimes with 30 stamps, and at others with 25, according to the supply of quartz. We crushed 1990 tons of stuff, which yielded 481 ozs. of gold, making an average of 4 dwts. 20 grs. per ton. With the result of the tallings mill the total remittance consists of 553½ ozs. I think I can safely promise you an equally good remittance next month, although, of course, the Christmas holidays will greatly interfere.—Tallings Mill: The result from this mill was slightly better than last month, a part of which is owing to my having had some scrapings left from the former month. We treated 210 tons of tallings, which yielded 72½ ozs. of gold, making an average of 6 dwts. 22 grs. per ton. I have already commenced to get in the timber for the square stamps; in fact, the blocks for the foundation are ready for placing. As soon as the weather improves I intend to order the timber for the tramway, which we shall have to construct from the Esperanza Mine to the mill. The expenditure was \$937. 6s. 2d.; the remittance is valued at 1300l. I hope to be able to give you an equally satisfactory report next month.

—Telegram received from Eureka to Javali, Jan. 4: The week's run of the furnace was \$11,000. The number of tons smelted was 206, producing 44 tons bullion. The shipments of the week were 129 tons.

YACUACHI.—The director has received a report from Mr. C. J. Harvey on the principal reef examined by him. The outcrops of other reefs have been examined, and samples of quartz sent home for analysis.—Charlotte Estate: Cootacovill Hill: A strong, well-defined vein of quartz has been opened on this hill; direction north and south, and underlie east. On the outcrop it is about 5 ft. thick, and looks very well. Excavations have exposed the reef some distance on the underlie, which assimilates to the slope of the hill. A fair sample taken from this reef on being crushed and washed gave a good show of gold, by which I estimated the quartz would yield at the rate of 10 dwts. of gold per ton. I should have been very much gratified by the result, as the character of the gold obtained from quartz reefs, some of it being in the form of fine threads or fibres, others flattened, and some very fine dust, the larger portion of the sample being in the form of fine threads. This is a very promising reef, and should be further prospected, either by adit level, for which there is great facility south of the present opening, or by shaft on the slope of the opposite hill, about 200 ft. east of the outcrop. A fine stream of water passes through the estate, crossing the line of reefs a few hundred yards north of the explorations, where a fine position is available for any reduction works.

SOUTH EXPAN GOLD.—C. J. Harvey, Dec. 18: The mill is doing better than at any time heretofore. In the drift we have the breast opened 65 ft. wide, and shall open as wide as it will pay; probably 75 ft. on the pay streak. On the outside we are cleaning bed-rock and working towards the Miner's Ditch Company's ground, and have found considerable coarse gold. Yesterday we had milled 500 carloads, and had taken up from sluices about \$700, and I have about \$200 in coarse gold picked up. I expect the mortars are catching a good deal. They have not been touched. In the mine we have sufficient water now to start hydraulic, and shall turn on water on Monday, Dec. 20. The recent rains have not filled the ditches, but I think we shall soon get more, and without doubt can continue washing.

FLAVILLA.—Dec. 14: There has been no new development at the mine since I last wrote you. The south drift in Brook's shaft looks fully as well, and we have taken out about 1 ton of ore during the last 10 days. The south drift has not improved any; the branch looks a little better, but the ore is scattered through the spar that we can save but very little of it. We have not found the vein or footwall in No. 1 yet, but to judge from indications I think we are very near it. We are still working the same force, and our expenses are about the same.

NEW GOLD RUN.—F. H. Chadbourne, Dec. 18: Malpasso: Run No. 72, from Oct. 18 to Nov. 16, during which washing was carried on for 419 tons, which spent \$2448.32, the cost for the same period being \$1960.20, which includes \$209.80 paid on the new opening. The produce of the present run shows an improvement of \$1.09 per hour upon last run, which is most satisfactory, considering that we have hardly fairly turned round yet to run up the channel. I have carried the works wide to allow room for waste, and as the gravel was good on all sides I did not like to leave any behind which was within reach. Much time was lost in running the cut for sluice No. 3 down to grade. We appear to be in the channel of the ravine now, but on the bottom, so the more sluice has been cut in. We advanced 120 ft. ahead, making total length 1074 ft. 6 in. We are now in a position to make use of the Malpasso pipe, but as the expenses are so increased by the carriage of the Malpasso stores I have not pushed this work. I propose to make a clear run of one month this time to provide funds for putting up this pipe.—Malpasso: The final clean-up at this mine yielded (with

that collected from the old works) \$980.90. Up to date nearly the whole of the tube has been carried over to Malpasso, and a portion of the stores. Some ponds and the patron remain at the mine taking up the sluice, and collecting any gold and quicksilver that may have got below the sluice bottom.

PESTARENA UNITED GOLD.—For the month of December the returns were:—Pestarena, 386 ozs. 2 dwts. from 357 tons of ore; average yield per ton, 1 oz. 1 dwt. 12 grs. Val Toppa, 178 ozs. 16 grs. from 586 tons of ore; average yield per ton, 6 dwts. 22 grs. Total, 567 ozs. 18 grs. from 943 tons of ore; average yield per ton, 11 dwts. 20 grs.

PORT PHILLIP AND COLONIAL GOLD.—Clunes, Nov. 24: Total quantity of quartz crushed on both companies' and tributaries' accounts for the month ended Nov. 3, 4193 tons; total gold obtained, 1239 ozs. 12 dwts. 12 grs.; average per ton, 5 dwts. 22 grs. Receipts (including 1537l. 4s. obtained from tributaries), 2622l. 3s. 3d.; payments (including 3157l. paid for firewood), 2100l. 12s. 4d.; profit, 521l. 10s. 11d., which was added to the balance in hand, made a total of 1737l. 11s. 6d., which was carried forward to next month's account.

THE VICTORIA (LONDON).—This company has received advices giving the result of the working of the South Clunes Mine for the month ended Nov. 10: Total quartz crushed, 3901 tons; total gold obtained, 1132 ozs. 14 dwts.; average per ton, 5 dwts. 19 grs.; receipts, 2452l. 1s. 11d.; payment, 1723l. 2s. 6d.; profit, 728l. 18s. 5d.; remittance, 175l.

ENGLISH-AUSTRALIAN (Gold).—Mark Pollard, Fryerstown, Nov. 25, writes:—The 420 Ft. Level: No. 1 rise has been risen 16 ft. this month; total from back level 105 ft. We have a little quartz in this rise; have not seen any gold in it. I am also stopping towards the boundary from No. 4 rise; quartz about the same thickness. We see a little gold, but it is poor.—The 320 Ft. Level: No. 1 rise, 160 ft. from cross-cut, has been risen 6 ft. this fortnight; total from back 31 ft. We have not met with any quartz—all slate ground. I have connected the drive from No. 1 rise to No. 2 rise that is south of prospecting shaft, and in stopping the back of the same see a little gold quartz; it is very hard. I am also stopping on the western side of the 180 ft. level—quartz payable.—The 150 Ft. Level: The quartz at this level is about the same thickness, but very poor. I have a new make of stone on the eastern side of this stone; we see gold in them, but have not done much on this block of stone yet. I have crushed 374 tons of stone this fortnight—result, 58 ozs. 6 dwts. of retorted gold; it did not turn out so well as I expected. There was about 250 tons, which came from the slope at the 150 ft. level, and 124 tons from other parts of the mine, which is payable all through. I am cleaning out the 70 ft. level, from prospecting shaft to the engine-shaft, which is gone together for 20 ft., to see whether I can find the quartz that was cut off with a slide; this level was driven and quartz worked by Mr. Raisbeck, and a rise put up from the 200 ft. level, and connected with the same. Machinery all in good order.

IRON AND COAL PROSPECTS.—In a letter to the delegates for the Mining Districts of Scotland, Mr. Alex. Macdonald, M.P. says:—I some time since, at a meeting held here, stated to you that the coal trade was growing stronger by degrees in various parts of the country and that that state of things would most certainly reach Scotland if not violently dealt with. I see nothing to alter that opinion. On the contrary, there is everything to confirm what I then stated. Consumption has increased, and prices have been in some instances made better. I am free to confess that the same strength has not yet been shown among Scotch coal districts as among the English and the Welsh. For this there are several causes, the chief being the great competition now going on among what are called the bankrupt firms.

As to iron and the iron trade, the year now closed has been a successful one as to make. The consumption has been good, the prices have not been unduly inflated, and there is at the present, looking at the markets of the world, no prospect of a falling off in consumption. On the other hand, I see no great hope of a great extension, and no cause for a great advance in price. Both coal and iron are steady. Keep wise, judicious men at your head to advise you, and this year may be a comparatively happy year to all engaged in coal and iron mining. I, perhaps, should say that, while I see no cause for a great advance in the price of iron, there may be such a legitimate demand as to make prices such as will enable the ironmasters at once to yield to their workmen an advance.

SALE OF COLLIERY PROPERTY IN THE RHONDDA VALLEY.—The Pen-y-graig Colliery (not that at which the lamentable explosion recently occurred) was sold for 16,500l., on Monday, by Messrs. Stephenson, Alexander, and Co., at Cardiff. The colliery which was opened in 1859, and has ever since been extensively, uninterruptedly, and successfully carried on, is now in complete working condition and thoroughly equipped. The works consist of a pit, shaft, two levels, engine-houses, fitters', smiths', and carpenters' shops, manager's house, cottages, store-houses, stables, &c., and also 76 coking ovens in full operation, together with 220 narrow gauge railway wagons. The fixed machinery and engines, pumps, trams, winding-gear, slings, and 20 horses, and all the plant and consumable stores, and other goods at the colliery were also sold. The colliery taking comprises all the best veins of house and gas coal in the district, down to and including the No. 4, or Abergorky Vein, and especially a large unworked tract of the world-famed No. 3 Rhondda house and gas coal, which is favourably placed for working. The seams of black band, ironstone, iron ore, and fire clay above the Abergorky vein are also included in the demise of about 458 acres of the property. The various workings and properties connected with the colliery cover an area of 553 acres, and are held for three several terms of years, of which as to 368 acres are unexpired, and as to 185 acres have 21 years left at the time of sale still to run. The coal royalties are described as being on the No. 2 coal, under 273 acres of the taking, 6d. per ton; on the No. 3 and 4, under the same area, 7d. per ton. On all the coal above the No. 3 vein, under 95 acres, 6d. per ton, and on Nos. 3, 4, and 7d. per ton. On Nos. 2 and 4, under 185 acres, 6d. per ton, and on No. 3, 9d. per ton, the ton consisting in all cases of 22½ imperial hundredweight. The purchaser also would be entitled to the benefit of the annual tenancies of Pen-y-graig Farm and of the colliery offices at Nos. 4 and 4, Dock Chambers, Bute Docks, Cardiff. The colliery, which was stated to be capable of a largely-increased output, was sold as a going concern, and the goodwill was included.

ANNUAL REVIEW OF THE HULL LOCAL MARKETS.—Referring to the movements of the local markets during the past year, Mr. W. FOWLER SUTTON writes that owing to the excessive cheapness of money the past year has seen a very important advance in all railway debentures and preference stocks, which can now only be bought to pay 3¼ to 3½ per cent. interest, and is a very interesting question whether such a high level of prices can be maintained. Looking, however, to their absolute security, the disavowal of foreign stocks, the growing wealth of the community, and above all, to the fact that there is no possibility of the supply of such preference and debenture stocks growing in proportion to the demand (for now a-days nine-tenths of investors require absolute safety before all), there is every probability not only of existing prices being maintained but of a further enhancement. This being the case present prices are not higher than is merited, and that should the next two or three years be fairly prosperous even higher rates may be anticipated in most cases.

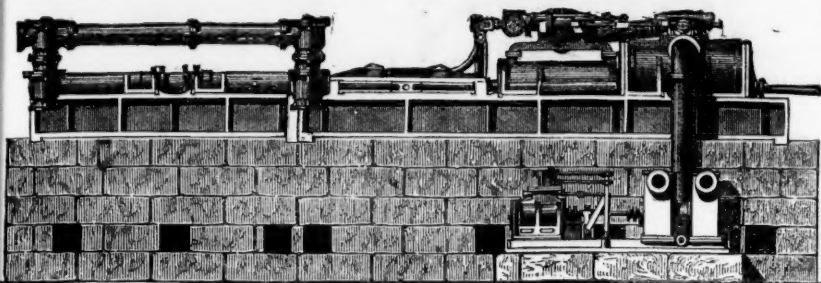
The feature of the year has been the promotion and floating of the new Hull, Barnsley and West Riding Junction Railway, and Dock Company. It is needless to revert to the hard-fought contest for the bill, and the signal victory of Lieut. Col. Smith and the promoters, but the wonderful rapidity with which the capital was subscribed cannot be passed over entirely without comment. That between seven and eight millions sterling would be subscribed from all parts of the country in four days for a purely local railroad, &c., far surpasses all calculations, and demonstrates most strongly the great favour with which railways are now regarded by the investing public, and its eagerness to support them when a fair prospect of remuneration is apparent. The local support is large and enthusiastic, by every section of the community, the number of small holders being so great as to cause, it is expected, the list of shareholders to exceed that of any other company of similar capital. The shares have been largely dealt in at a premium varying from 5s. to 12s. 6d. per share, but realisations of expectant allottees have caused the former premium to be the one now existing.

REVIVAL OF MINING—DYNAMITE SUPERSEDED.—A banquet in commemoration of the revival of mining was held at Tavistock on Jan. 4. Mr. W. H. Chichester, J.P., occupied the chair, Mr. E. Nicholls, of Callington, the vice-chair, and the company included the Revs. W. J. Tait, O. Sumner, Dr. Kemphorne, Messrs. F. Sumner, H. Sims, G. Finzel, H. Spry, W. Crier, T. W. Greenfield, Emmens, T. Grenfell, J. J. Daw, J. Turner, J. Mathews, W. Matthews, T. James, G. D. Nicholls, Jonathan Pearce, W. Richards, H. Strick, R. Harris, R. Barrett, G. B. Cundell, Carnazzi, A. Francis, J. Rowe, H. Pearce, E. Horswill, J. Pearce, G. Prout, C. W. Widdows, J. Babbage, G. Williams, W. Andrews, C. Seccombe, B. C. Seccombe, W. B. Skewins, and Capt. W. Skewins, J. Seccombe, A. Seccombe, Dunstan, Neil, F. Phillips, W. Phillips, and J. Bray. The usual loyal and patriotic and many local and general toasts were duly honoured, and, in responding to that of “Mining,” Capt. Skewins remarked that speaking of the mineral wealth of the district he might say that there had been enough produced at Devon Consols to buy all the Duke of Bedford's landed interest in the Tavistock district, and this had not reduced the agricultural area 100 acres, for the whole of the mining property in the district did not cover that area. Mining had contributed more to the prosperity of the country than any other industry that could be named. It was that which had made our Sovereign so rich, and England the champion nation of the world. In the course of his observations, Capt. Phillips, who also responded, said that the dynamite monopoly was now engaging the attention of the mining public, and as many knew he had been interested himself in the introduction of a new explosive, if not to supersede dynamite altogether, at any rate to break down its monopoly. He regretted matters relating to this new explosive were not in a more forward condition, for if they had been there would not have existed any necessity for the great movement to oppose the renewal of the dynamite patent. A short time since he had issued a preliminary notice respecting Kraft (Force), this being the name under which letters patent were granted for the explosive. After considerable looking about he had found a most eligible local site for a manufactory, plans of which were now before the Secretary of State for approval, and if approved means would soon be adopted for placing in the market an explosive which he could guarantee was equal to, if not more effective, and more safe in its use than dynamite, at a price satisfactory to the mining community. In fact, Mr. Björkman, the inventor of the explosive, was prepared to hand the manufacture of it to the mining public under the most favourable circumstances, which he (the speaker) trusted would be as favourably received.

EPPS'S COCOA—GRATEFUL AND COMFORTING.—“By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal frame by keeping ourselves well fortified with pure blood and a properly nourished flesh.”—Civil Service Gazette.—Sold only in packets labelled—“JAMES EPPS and Co., Homoeopathic Chemists, London.”—Also makers of Epps's Chocolate Ess. for afternoon use.

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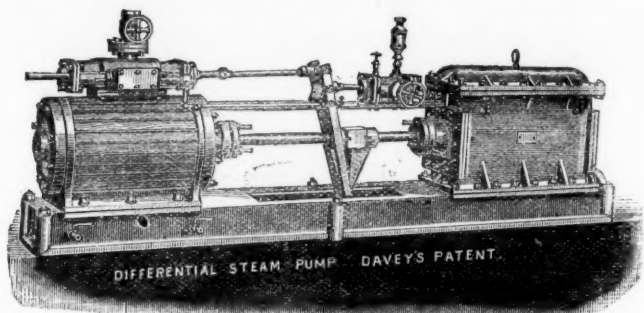
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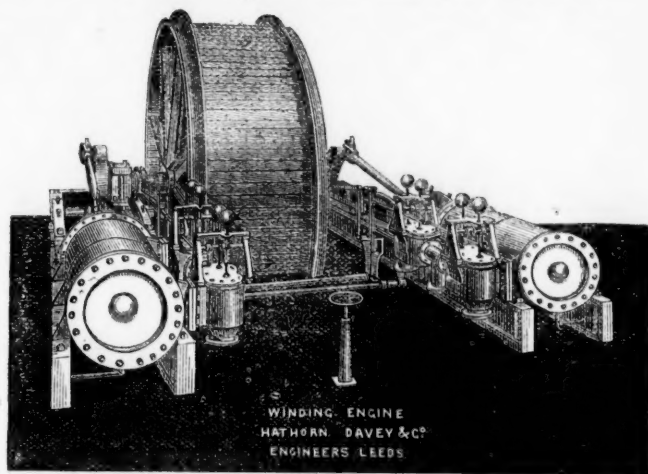
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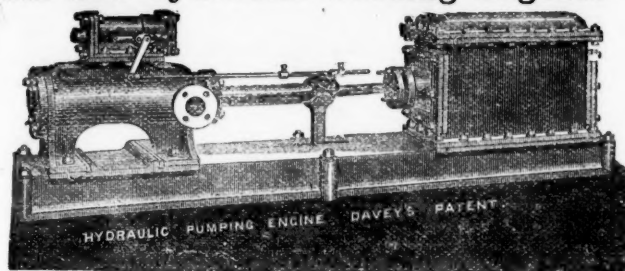
STEAM
AND
HYDRAULIC
MACHINERY

FOR
MINES,
AIR COMPRES-
SORS,
MAN ENGINES,
CAPSTANS,
&c., &c.

CATALOGUES ON APPLICATION.

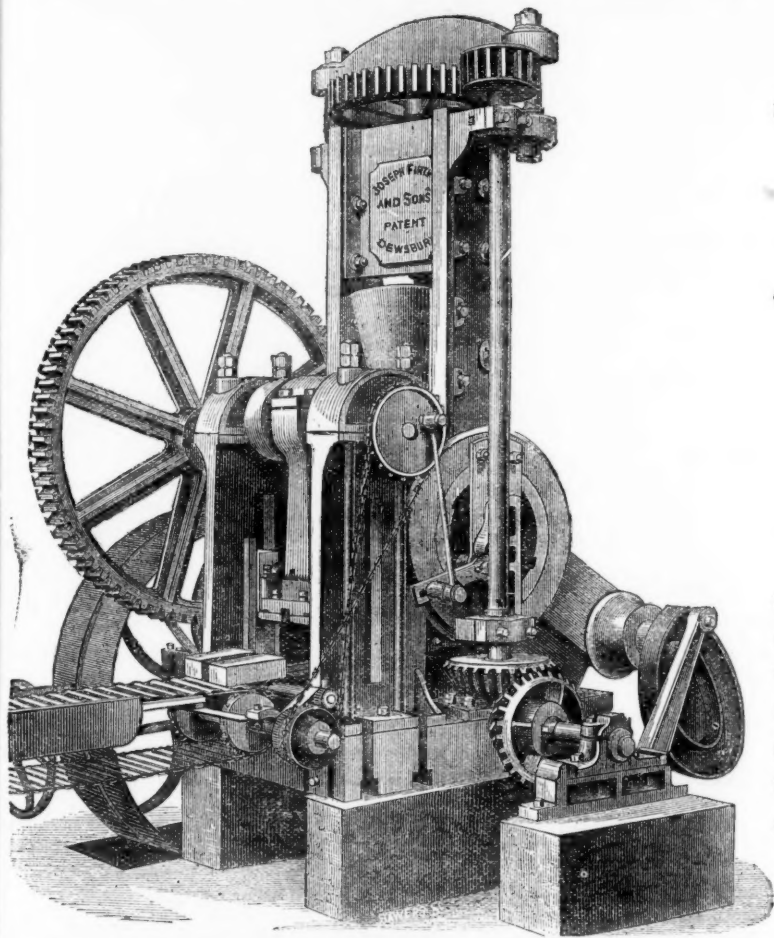


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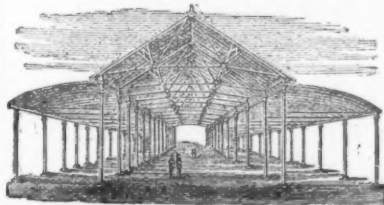
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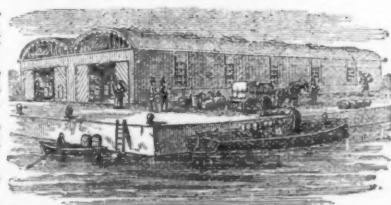
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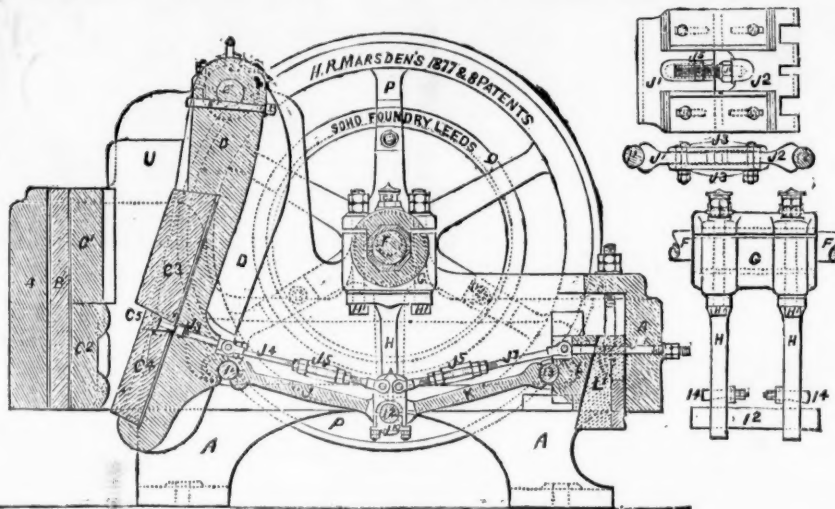
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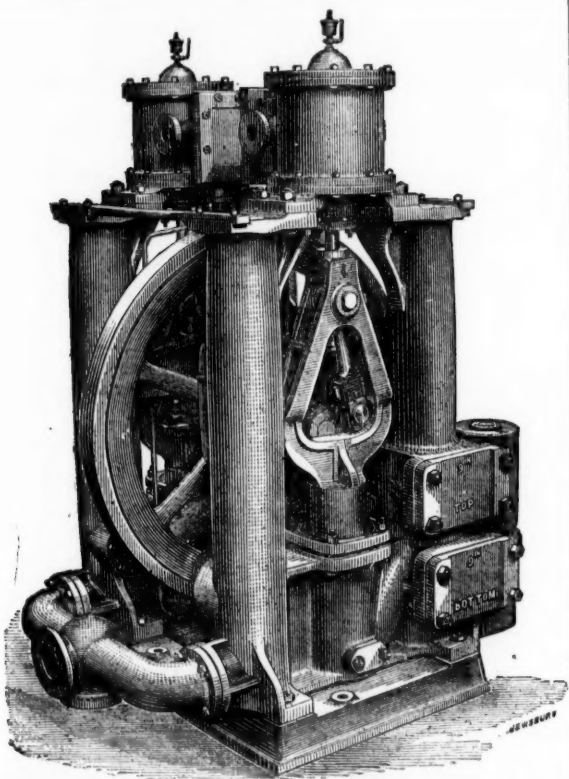
BLAKE'S STONE BREAKER.—Statement made by the Managing Director of the St. John del Rey Mining Company, Mr. John Hockin, with regard to six months' practical working of Blake's Stone Breaker, affording facility for judging of the relative economy of machine and hand labour in this kind of work, and also of the cost of getting the Stone Breaker to work in difficult places. The price paid to Mr. Marsden for the machine referred to by Mr. Hockin was £180, and adding to this the cost of engine, carriage, and fixing, the aggregate cost to the company of the Breaker in working order was £500. By this outlay the company is enabled to dispense with the labour of 55 people, the value of which is £800 per annum. The cost of working the machine could not be more than the wages of about five men (the machine requires but one man to feed it, so that the rest would be for engineer, fuel, oil, &c.), and allowing for interest on outlay and for renewal when necessary, the saving must be enormous.—*Mining Journal*.

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